

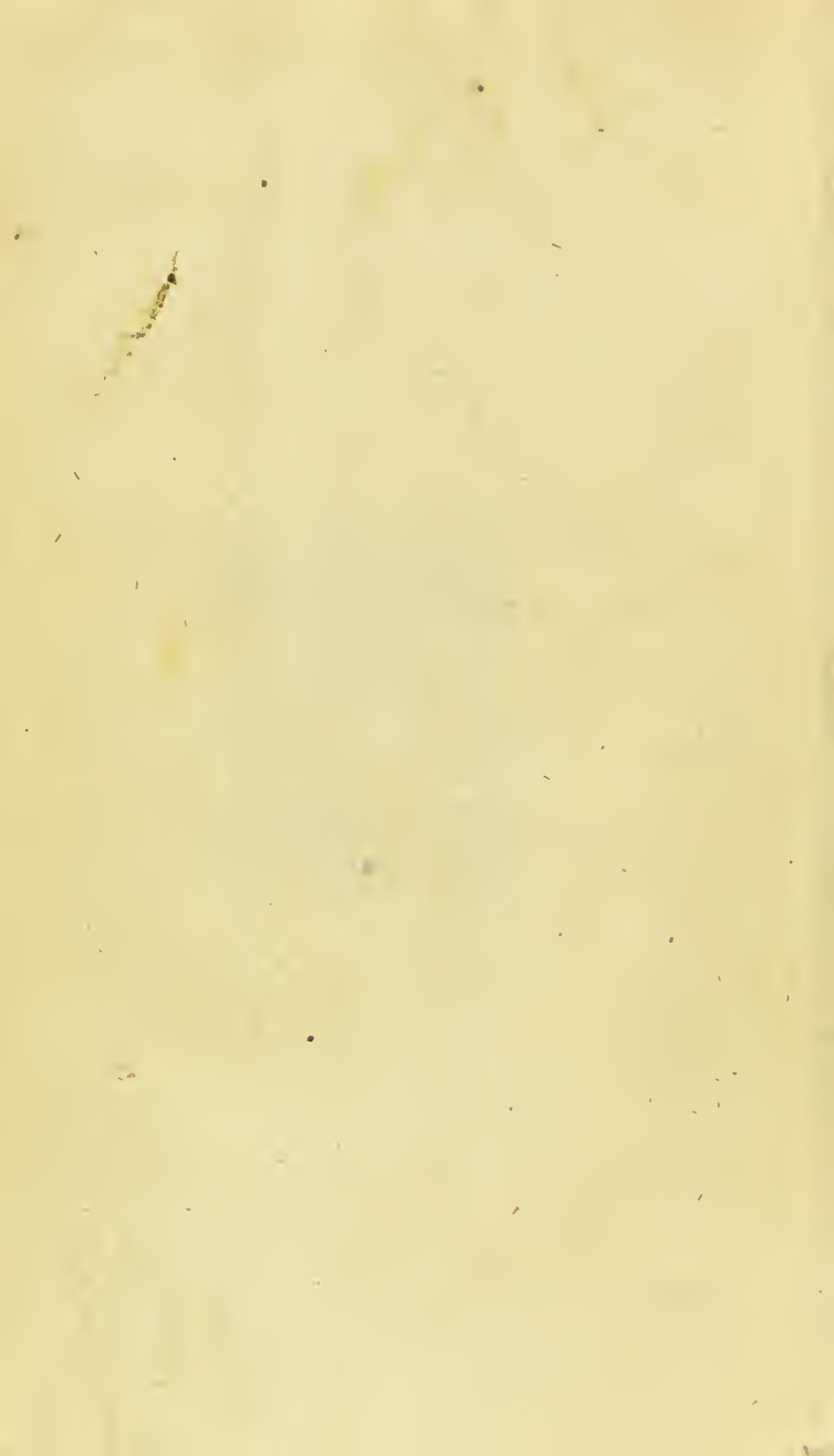
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Pharmacopœia Officinalis & Extemporanea:

Or, A COMPLETE

ENGLISH DISPENSATORY,

IN TWO PARTS.

THEORETIC and PRACTICAL.

PART I.

IN TWO BOOKS.

- | | |
|---|--|
| BOOK I. Of the Definition, Subject, General Intentions, Media, Instruments, and Operations of PHARMACY. | BOOK II. Of the Distribution into proper Classes, General Nature, and Medicinal Virtues, &c. of SIMPLES. |
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PART II.

IN FIVE BOOKS.

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| BOOK I. Of the Preparation of Simples. | POEIAS, according to the last Alterations thereof; together with those of other Authors, and the present Practice, which claim any Notice. |
| BOOK II. Of Saline Preparations. | |
| BOOK III. Of Metalline Preparations. | |
| BOOK IV. Of Officinal Compositions; containing all the Prescriptions of the <i>London</i> and <i>Edinburgh</i> PHARMACO- | BOOK V. Of Extemporaneous Prescriptions; which are therein disposed into proper Classes according to their several curative Intentions. |

By JOHN QUINCY, M. D.

The FIFTEENTH EDITION, much Enlarged and Corrected.

L O N D O N,

Printed for T. LONGMAN, in Pater-noster Row. 1782.

25653



A D V E R T I S E M E N T.

*I*N the present Edition of Quincy's Dispensatory, many of the old exploded Prescriptions, which kept their Place in the former Editions, are left out, and new ones, more conformable to the present Practice, are added. Many Errors are corrected, and all the modern Discoveries in Medicine inserted. The Reader will have in this Edition a complete View, not only of the most approved Practice of the last Age, but of the present ; which cannot be said of any other Book of the kind.

After the Example of the Edinburgh College, the better to ascertain the Articles of the Materia Medica in general, each is specified according to the Linnæan System.

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P R E F A C E.

IT would be needless to attempt to show here the utility of QUINCY's *Dispensatory*, or to set forth its particular merit; the great demand for, and universal use of it by the practitioners in every branch of medicine, having done that much more effectually than lies within the power of words. But whatever value the whole might have, there were nevertheless particular parts of the book which were liable to exception: there were several things omitted which ought to have been inserted; several inserted which had been much better omitted: and many others, which, though in their proper place, were, through the authority of the reigning doctrines of the time, or want of lights more lately obtained, erroneous and delusive. The theory of Pharmacy was the most defective and faulty: the greater part of what was so called, was by no means pertinent or relative to the subject: not only a proper general view of that was wanting, but also a far greater part of the necessary rules and directions for conducting well the operations; and the few of those which were given, as likewise the survey of the *Materia Medica*, though both proper parts of the theory, were disjointed from it. Instead of what properly related to the preparing and compounding medicines, abstruse hypotheses and perplexed reasonings, founded on an application of the mechanic and hydrostatic laws, and other remote principles, were introduced to explain the qualities and effects of the simples, and the operations practised on them: and this not only in that part called the theory, but very frequently, likewise, in the survey of the *Materia Medica*, and the notes on the recipes; while, to make the matter still worse, this was generally done inconclusively, and sometimes falsely.

The prescriptive part was indeed much more perfect;

but through the crude and unrefined state in which Pharmacy then was, many recipes had obtruded themselves into it, which, being insignificant or absurd, have been totally neglected in practice; and rendering more useful articles less easy to be found, by idly enlarging the volume, required much that retrenchment, the author himself, in one part of his work, had threatened to perform on them: and, indeed there were some of these, which, since the exploding incantations and other anile practices, and the introduction of common sense to judge in matters of medicine, were even an opprobrium to the work.

Besides these original defects of the book, it had contracted others more momentous, which were the produce of time. The regard which the improved Pharmacopœia of *Edinburgh* met with from our practitioners, of course gave its prescriptions a greater title to a place in this collection than the more obsolete ones of the *Augustan*, *Zwelfer's*, and others, of which it was in part composed: and the great change made in the Dispensatory of our own College, rendered the new forms of it consequently wanting here, to support, even in any degree, the professed intention of the work: which was to exhibit, in the first place, the orthodox practice, as ordained by the College; and then to subjoin such other recipes as were already in some esteem or merited to be so.

It was therefore absolutely necessary, in order to continue the utility of this *Dispensatory*, and to preserve that esteem in which it has hitherto been held, that it should undergo a reformation; and receive considerable additions; that what was originally trivial, or through the revolutions in practice grown obsolete, should be discarded and expunged; and its place supplied, by what modern improvements, or present authority, has more lately introduced into practice. This it is presumed is here effected; and not only so as to have restored the work to its pristine value, but to have rendered it yet more extensively useful, by enlarging the plan, as well as amending the method. But as great liberty has been taken in doing this, by making various alterations and additions, it seems expedient to

give a short view of each particular of them, and to offer some reasons in their justification.

What Dr. Quincy called *The Theory of Pharmacy*, together with the subsequent sections on particular operations, is here totally rejected; the first containing very little to the purpose; and the latter being also loaded with impertinent matter, and in other respects very deficient. In their place here is substituted a methodical investigation of the constituents, general intentions, media, instruments, and operations of the art: with a summary explication of the principles whereon they depend; which, together with the history of the *Materia Medica*, form a proper and perfect theory of Pharmacy; as comprizing every thing previously necessary to be known, for the execution of any particular prescription. The dependence which modern Pharmacy has, in part, on Chemistry, gives us here occasion to introduce such of the principles of that art, as with the rules for the operations, and the collection of all the material processes thereof in the prescriptive part, make this book comprehend *A complete System of Pharmaceutic Chemistry*: a performance much demanded, and not hitherto executed; the voluminous work of *Boerhaave*, though the greatest attempt towards it, falling far short of perfection. The other part of what the theory is now made to consist of, *viz.* the survey of the *Materia Medica*, is suffered to remain with less alteration. In respect to the matter, there is only taken away some of the mechanical explication, and other immaterial passages, and a fuller added, and (as it is hoped) in several instances, a more just account of the nature and medicinal powers of the capital simples; as *Mercury*, the *Bark*, *Opium*, &c. in doing which nothing is delivered but what is deducible from the demonstrable nature of the subject, or what may be immediately verified from the testimony of facts. But, in the disposition of the contents of this part of the book, a considerable change is made. For Dr. Quincy, contrary to the obvious laws of method, having therein confounded the practical matter with the theoretic, by mixing the processes requisite for the preparations of simples previously to their being administered or entering

As it was proper to take all the prescriptive part of the *London* and *Edinburgh* Dispensatories into the book, it is thought expedient to add likewise the rest of their contents; by these and the other additions, it has been endeavoured to make the book comprehend every thing which can be required in an *English* Dispensatory; and to suffice fully in the place of all others.

Besides the other additions, here is subjoined an *Appendix*, containing the several methods of preparation, and an inquiry into the nature and medicinal powers of some fashionable remedies lately received into use: and care has been taken to give these articles a more particular consideration; as the importance of their pretensions, and the great reputation they bear, especially the three principal, *Tar-Water*, *Mrs. Steven's Medicine for the Stone*, and that of *Dr. Chittick's*, of course, render any information in regard to them, acceptable to many persons.

Thus, endeavours have been made to supply the defects, amend the faults, and extend the design of *Quincy's* book; and thereby give it a just claim to its title of *A Complete English Dispensatory*: and it is hoped that in all material points, success hath followed; though it is not pretended that the work is, in every respect, absolutely perfect. Some lesser errors of method and disposition, and many immaterial passages, too closely connected in many places with what is more valuable, still remain; and bid defiance to correction, without the total demolition of the original fabric of the book. But these are imperfections, nevertheless, which diminish, in a very small degree, the value of the work; as in respect of the matter, the charge is *redundance* not *deficiency*; in regard to the method, the offence lies against *elegance*, not *utility*: the inaccuracies of order in it may be easily excused, as they reach not confusion; and the comprehensiveness of its useful matter may well atone for its containing somewhat more than was necessary: but this favour will appear more due, when it shall be compared with the performances which have been offered as its competitors.

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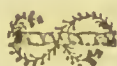
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C O N T E N T S.

A P P E N D I X,

Containing, *An Account of the Preparation, Nature, &c. of Tar-Water, 637 ; Mrs. Stephens's Medicine for the Stone, &c. 639, Dr. Chittick's Secret for dissolving the Stone, &c. being not properly reducible to any of the preceding Classes of this Work.*



E R R A T A.

Page 291. In the article *Liquor Æthereus Vitriolicus*, for continue to boil until six ounces, read sixteen ounces.

Pages 203 and 204 are each twice printed, so when referred to in the index, see both.

Page 229. Column the 2d, line the 8th; for page 6, read page 40.

PART I.

Theory of PHARMACY.

BOOK I.

SECT. I.

Definition, &c. of Pharmacy.

PHARMACY is the art of preparing and compounding natural and artificial substances for the purposes of medicine.

PHARMACY was distinguished into two branches; GALENICAL and CHEMICAL. The first consisted in altering the form or texture of simples, so as to render them fit to be taken or applied, without attempting any change in their qualities; and in conjoining them in compositions of various forms, wherein, nevertheless, each simple was supposed to retain its original properties. The latter consisted in many operations (in most of which, fire was a principal medium) whereby extractions were made of the more elementary parts of simples, which in their separate state had qualities different from those of the intire body of which they were a part; and combinations of different simples were formed, with

qualities not found in any of the constituents.

This distinction of Pharmacy into GALENICAL and CHEMICAL was occasioned by a division of the practitioners of medicine into two sects, which happened on the introduction of chemistry into medicine; the chemists arrogated to themselves and their art every kind of merit. The other party blindly adhered to the rules of the schools; from whence, as followers of Galen, they were distinguished by his name.

This division into the two sects of Galenists and Chemists hath long since ceased, and the distinction of Galenical preparations is as justly growing into neglect; there being no proper principle on which to support it. The Galenical forms are none of them independent of Chemistry, the most simple pharmaceutical preparations are so far

B

chemical

chemical as they have any dependence upon the properties or relations of the materials ; so that PHARMACY is properly and only, a branch of Chemistry.

PHARMACY may be divided into Theoretical and Practical.—The first, teaches the knowledge

of the medicinal substances, their properties, qualities, and relations to one another, also their general effects on the human body : the second, teaches the skilful performance of the several operations, by which they are adapted to particular uses.

S E C T. II.

Subject of Pharmacy.

THE SUBJECT OF PHARMACY, in a general view, is every thing that can be employed in, or made conducive to, the cure of diseases. But as this would comprehend almost all the various substances in nature, there being few which have not already been applied to some purpose in medicine ; and fewer yet, that, either from an original application of them, or as substitutes for others, might not be so, it is proper to reduce the *Materia Medica* to much narrower limits. As there are many advantages with regard to practice, in comprizing it in as few simples as can execute perfectly all the medicinal intentions ; it would be expedient, were a complete reformation of medical practice attempted, to reject the greater part of what even at present are used. But as the undertaking to procure a conformity to the most rational system, if at all practicable even by the most authorized body, would be a romantic pursuit in a private person ; it is requisite, in a work of this kind, instead of considering the *Materia Medica* as it ought to be, to treat of it as it is. The catalogue of simples in this work com-

prizes therefore all such as the colleges of London and Edinburgh make a part of theirs, and such others, as, by longer use or new introduction, hold any considerable place in the present practice.

The several species of substances which constitute the *Materia Medica*, may be reduced to classes in four views : according to their PRODUCTION, as vegetable,—animal, — mineral, — and artificial. According to their FORM, as earths, — salts, — oils, &c. and according to their QUALITIES, and the curative intentions they are made to serve, as evacuants,—alteratives, — cathartics, — narcotics, &c. The manner of the distribution of simples chosen in this work, in order to a survey of the *Materia Medica*, is formed on the first and last of these classes, for reasons there given ; and the second, being more applicable to medicines in general, than to simples, is laid aside. There are, besides the above, other lesser classes or subdivisions of each of those genera ; but I shall omit considering them here, as they will be more properly treated of when we come to the particular survey of the *Materia Medica*.

S E C T. III.

Of Menstrual Powers, and Menstrua.

AS not only the improvement of Pharmacy, but the accurate preparation of many medicines, as well as a right conception of their effects and action, depends on the knowledge of the menstrual powers, and menstrua, I shall first give a just notion of their general nature and then proceed to shew the principal kinds thereof.

Whatever body will dissolve and intimately mix with another, is called a menstruum of that body. The name probably was derived from some notion of the old chemists about the influence of the moon in the preparation of dissolvents. There are in all bodies, besides that universal attraction from whence gravitation results, certain specific attractions peculiar and confined to each kind, by which they tend to combine with some other particular kinds, and with them only; and being conjoined, form a new species, in which the specific attractions peculiar to their constituents are frequently lost, and new ones generated, by which they mutually act with some of those bodies, in respect whereof they were before incapable of any effect. Thus tartar vitriolate, which is formed of oil of vitriol and fixed alkaline salt, ceases to combine with many of the coloured gum-resins, contrary to the nature of both its elements; and water, fixed alkali, and the spirituous part of lime, make the menstruum, called the capital lye, which will combine

perfectly with oils, though all its ingredients refuse, while separate, to unite with them.

Bodies, in respect of others with which they are thus capable of combining, are called *MENSTRUUA*; and in respect of those with which they refuse to combine, *NEUTRAL*: but as there is no term in present use to express the action of menstrua, I shall, when I have occasion to speak of it, call it *COMMENSTRUATION*, meaning the mutual effect of bodies in forming new combinations.

Commensuration is subject to various laws in the combinations of different kinds of bodies. In some instances, the elements being conjoined in a certain proportion of each, the new body becomes neutral, in regard to additional quantities of any of those elements: as when the due proportion of volatile salt and spirit of salt are combined, they form *sal ammoniacum*; to which, if any further quantity of either of its constituents be added, they remain unchanged, and only as if mixed with any indifferent body. Water likewise, which combines with all species of salts, will, after a certain proportion of any kind are conjoined with it, become neutral to any additional quantity of the same, which, if added, remains entirely unaltered. This limitation of the quantity, in which certain elementary species are capable of combining, is called *SATURATION*.

In other instances, as acid spirits, spirits of wine, and some kinds of gums, with water,—all the metals which will combine with each other,—and many more species of bodies, the commensuating proportion is indefinite; and they are capable of combining in any unlimited quantity without saturation.

In some instances, fluid bodies combining with solids, destroy their continuity, and render them likewise fluid; as in the case of water with salts and gums,—of spirit of wine with resins, and of others. This kind of commensuration is called *SOLUTION*; and the solid bodies so changed, are said to be *DISSOLVED*.

In other instances, the fluids commensuating with solids coalesce with them in a solid form; as in the case of *aqua regia* with silver,—vinegar with lead,—and all acids with iron,—where their proportion is not too great. This kind of combination is called *CORROSION*.

The commensuating powers of bodies are in most subjects greatly increased by heat, not only in regard to the acceleration of the effect, but in respect of the quantity in which bodies can be dissolved in the menstrua capable of saturation; for in some of them, a quantity of dissolved matter three times as great as they can retain when reduced to the coldness of the atmosphere, can be kept fluid while they are of a boiling heat; and in some instances, an extraordinary degree of heat is absolutely necessary to the commensuration, even in any time or proportion whatever. But in some cases, as in the instances of whites of eggs and water, a certain degree

of heat is destructive of the commensuating power they have when cold; and these bodies, if already combined, may be thereby re-separated.

In order to the commensuration of bodies, it is always necessary that one or both of them should be in a fluid state, or at least commixed with some fluid. Therefore, when solid bodies are to be conjoined, the addition of some proper fluid, or their fusion by heat, when they admit of it, must be always made.

There are several genera of bodies, of which the respective species have the same commensuating powers, but in greater or less proportions; as in acids or alkalies, of each of which there is a gradual series. In many instances, where one of the weaker of any genus is combined with another, and a third of a stronger species of the same genus with the first is added, it will, by its superior force, dispossess the first, and, having separated it, form a new combination of the second and itself; while the first, having regained its own nature, remains as if mixed with a neutral body. This is seen in the preparation of Glauber's salt, where the oil of vitriol being added to common salt, and being an acid of higher attraction than the proper spirit thereof, expels it from the alkaline basis of the salt, with which itself combines: and the same happens also, when *aqua fortis* is made by means of oil of vitriol.

In like manner, a superior alkali separates those of inferior strength from acids wherewith they are combined; as in the case of fixed alkaline or volatile salts added

SECT. 3. *Of Menstrual Powers, and Menstrua.* 5

added to alum or vitriol, where the earth or metal before joined with the acid, is dispossessed by the saline alkali, and re-assuming its own nature, subsides in the form of a powder. When solid bodies dissolved in a menstruum are thus separated by the addition of a third, and made to subside,

the effect is called PRECIPITATION. As the doctrine of the affinity of bodies is of very extensive use in the chemical Pharmacy, and many of the officinal processes are founded on it, we shall here subjoin a table of affinities formed upon that of Geoffroy.

A TABLE of the Attractions or Affinities between different Substances.

INFLAMMABLE SPIRITS	water	oils and refins							
WATER	Inflammable spirits	neural salts, composed of mineral acids and fixed alcalies; and metallic salts							
	all alkaline salts	inflammable spirits							
ACIDS in general	fixed alkaline salts	vol. alc. salts, and alc. earths	metallic sub- stances						
VITRIOLIC Acid	inflammable principle	all alcalies	zinc and iron	earth of alum	vitrous copper	silver mercury			
NITROUS Acid	inflammable principle	all alcalies	zinc	iron	copper	tin lead	mer- cury	silver	cam- phor
MARINE Acid	all alcalies	zinc	iron	tin	regulus of antimony	copper	lead	silver	mer- cury
ACETOUS Acid	iron	copper							
FIXED AL- CALINE SALTS	vitriolic acid	nitrous acid	marine acid	vinegar and vege- table acids	acid of tartar	oils and sulphur			
VOL. ALC. SALTS	vitriolic acid	nitrous acids	marine acid						
SOLUBLE ALC. EARTHS	vitriolic acid	nitrous acids	marine acid						
METALLIC SUBSTANCES	marine acid	vitriolic acid	nitrous acid	vegetable acids	oils				
INFLAMMA- BLE PRIN- CIPLE	nitrous acid	vitriolic acid	metallic sub- stances	fixed alca- line salts					
SULPHUR	fixed alca- line and quick lime	iron	copper	lead	regulus of antimony	mercury	arfe- nic		
GOLD	ethereal spirit	acids							
MERCURY	marine acid	vitriolic acid	nitrous acid						
LEAD	vitriolic acid	marine acid	nitrous acid	vinegar	oils				
SILVER	marine acid	vitriolic acid	nitrous acid						
COPPER	vitriolic acid	marine acid	nitrous acid						
IRON	vitriolic acid	marine acid	nitrous acid						
REGULUS OF ANTIMONY	vitriolic acid	nitrous acid	marine acid						

If the first substance in any of the foregoing series be combined with another of the same series, the addition of any of the intermediate bodies will disunite them. Thus if inflammable spirits are combined with oils, and water be added, the

oils will be disunited. Or if any acid is joined with a metallic substance, it will let go the metal to take up an alkaline earth, or volatile salt; and these again it will forsake, to unite with fixed alcalies.

Of

Of particular Menstrua.

Any fluid that dissolveth a solid body, is called a menstruum, or solvent.

The principal menstrua in Pharmacy are, water — acid spirits, — vinous spirits, — alkaline salts, and oils.

WATER is the most general menstruum known, being found combined, in a greater or less proportion, with almost all species of bodies whatever; but, excepting that proportion which is necessary to their constitution, it is averse to combining in a greater with some; as in the instances of oils, earths, metals, glass, and others.

The fluid bodies with which it will commensurate are vinous and acid spirits, wherewith, when both are pure, it will combine any proportion. The solid bodies with which it will commensurate, so as to produce a solution, are all kinds of salts, — the proper gums of vegetables, — and, by the assistance of heat, the gelatinous parts of animals. Being previously conjoined with alkaline salts, and the saline part of lime, it will commensurate with oils, and dissolve all kinds of sulphurous bodies, whether gums, resins, or fixed sulphurs. The menstrual power of water in respect of these bodies, is without saturation, except in the case of salts.

The assistance of some fluid being required, as I before observed, in order to all menstruations of solid bodies, water necessarily becomes a general medium of combination, with regard to all that do not admit of fusion by heat; and consequently is a principal medium in the execution of those intentions of Pharmacy which depend on the combination of different

substances, or the re-separation of the elements of such as are compound. The power of dissolving gums renders it extremely useful in extracting and depurating that part of vegetables, in which frequently their whole virtues reside, from all feculencies and heterogeneous bodies. Edulcoration, crystallization, and many other intentions of Pharmacy, which could not be completed by any other medium, are executed by means of the dissolving powers of water.

ACID SPIRITS may, from the extensiveness of their action and power, be accounted the second menstruum. They combine with water, vinous spirits, and oils of every kind. — They dissolve all metals, earths, alkaline salts, all animal and vegetable substances, most minerals; and indeed some or other of them either corrode or dissolve almost all the substances in nature, some kinds of glass excepted. This diffusive power of uniting with other bodies renders them applicable to many great purposes in Pharmacy; they divide the parts of metals, and render them capable of passing the lacteals, and of being introduced into the habit; whereas, the greatest part can by no other manner of preparation be made to act further than in the *via prima*: they give activity likewise to several bodies, which in their simple state are absolutely passive and inefficacious. Being combined with alkaline salts and earth, they form neutral salts, indued with purgative, diuretic, and other medicinal qualities, and thence afford one of the most valuable *genera* of medicines. They likewise, from their

power of attracting alkalies, furnish the means of making several precipitations, and pure separations of various substances, which could not be otherwise accomplished.

There are four kinds of acid spirits; commonly, though improperly, distinguished by these names, oil or spirit of vitriol,—spirit of nitre—spirit of salt,—and vinegar. The first and third are mineral productions; the second, formed from the air, or something therein contained, which is collected by alkaline salts or earths; and the last, produced from the saccharine juices of vegetables. The three first have in most instances common powers, but with a gradual subordination to each other: for if spirit of salt be combined with any alkaline body, with which likewise the spirit of nitre will commensurate, and the same be added, the last will expel the first, and seizing the alkali, form the same species of compound as if the spirit of salt had been absent: If to this new body oil of vitriol be added, the spirit of nitre will be thereby dispossessed, in the same manner as the spirit of salt was before by that; and the spirit of vitriol will combine with the alkali, as if they had been mixed simply. This power in acid spirits of superseding each other in their action on alkalies, constitutes the principle on which *aqua fortis*, Glauber's spirit of salt, mercury sublimated when prepared by the common methods, and many other preparations, are made, and may probably hereafter furnish the means of improving the methods of preparation now in use, or of forming new ones not less valuable. There are nevertheless particular instances in which acid spirits vary

from each other in their dissolving power: as all are incapable of dissolving gold, beside a mixture of spirit of nitre, and spirit of sea-salt;—spirit of nitre *only* can dissolve silver;—mercury, which is soluble in spirit of nitre and spirit of salt, is only corroded by spirit of vitriol; which is also entirely resisted by lead in its metalline state; though that metal is soluble in both the other acids. But even this defect of power has been made useful in Pharmacy; for the process for making what is properly called White Precipitate, is formed on this principle; for though spirit of nitre and spirit of salt both dissolve mercury when single, yet when mixed they only corrode it; in this process therefore, the mercury being dissolved in spirit of nitre, and sea-salt being added, a part of the acid thereof is let loose from the alkaline basis, by the superior power of the spirit of nitre, and the menstruum consequently changed from a dissolvent to a corrosive, whence the mercury being converted from a fluid to a solid form, is necessarily precipitated. The vegetable acids dissolve a considerable quantity of zinc, iron, copper, lead, and tin; and extract so much from the metallic part of antimony as to become powerfully emetic; they dissolve lead more readily, if the metal is previously calcined by fire, than in its metallic state.

SPIRIT OF WINE is the third kind of menstruum; it dissolves (excepting the gums *animi* and *copal*, and some few others) all the concreted juices of vegetables, whether balsams, gums, resins, or gum-resins;—camphor,—sal diureticus,—and sulphur previously combined with fixed alkaline salt.

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It combines with water, — acid spirits, though not in its whole substance with oil of vitriol, — essential and ethereal oils, — and soap. The power of dissolving the gums and resins of vegetables renders it of great use in Pharmacy, in supplying the means of making extracts of those substances from the species which afford them, and of purifying such as are already obtained. The power of dissolving balsams afford the means of forming artificial compound balsams; and the power of combining with ethereal and essential oils, furnishes a proper vehicle and diluter to those substances, too active and potent to be employed in their concentrate state; whence result those two considerable forms of medicines, tinctures and distilled spirituous waters. It is also the menstruum of several of the colouring and of the medicinal parts of animals.

ALKALINE SALTS are the fourth kind of menstrua; these are of two species, fixed and volatile; (the fixed are divided into the mineral and vegetable;) being themselves previously dissolved in water, they dissolve many of the gum-resins, or other concremented juices of vegetables, not soluble in water: they dissolve likewise sulphur; — being actuated by the addition of quick-lime, they dissolve all the terebinthinate and resinous parts of vegetables; — and oils, with which being united, they constitute soap. Fixed alkaline salts combine with water so strongly, and are so neutral to spirit of wine, that being added to the same, diluted with water, they separate the water from it, and suffer it, by its specific levity, to rise above the solution. The power of alkaline salts to dissolve the resins and con-

cremented juices of vegetables, has not been hitherto much applied in Pharmacy; spirit of wine, which is the more general menstruum, having anticipated the use or necessity of it in that view: but the College have in their last Dispensatory, introduced them in one instance, the volatile tincture of the bark: and most probably they will be hereafter found to furnish less laborious and more profitable extracts, than spirit of wine; as they dissolve as well the gumous as the resinous parts of those species which contain both, and may be prevented from making any change in the quality of the subject, by adding to the extract such a quantity of acid as will render them neutral. The power of combining with sulphurs, and rendering them soluble in water, affords the means of making the *lac sulphuris* and *sulphur auratum antimonii*: their power of attracting water from spirit of wine, affords a method of instantly obtaining a very strong spirit from a weaker, by adding fixed alkaline salts, heated red-hot. There is a subordination of power in the two kinds of alkaline salts, as well as in the acid spirits; fixed alkali superseding the attraction of the volatile, and dispossessing it on their mixture of any acid with which it was before combined; as in the processes for making spirit of *sal ammoniac*, and *sal volatilis oleosus*, when salt of tartar is employed.

OILS are the fifth kind of menstrua: and when considered as such, must be distinguished into their two species of substantial, and essential, or ethereal. Substantial oils, with the assistance of heat, dissolve sulphur, and with a large proportion assume a balsamic form; — turpentine and other concremented juices of vegetables; —

lead;—the coloured resin of alkanet root;—and wax. Essential, &c. oils dissolve many of the concretioned juices of vegetables;—and sulphur. The power of oils to combine with turpentine, &c. affords the principle on which most of the plaisters and unguents in use are formed; as does likewise their power of uniting with lead and wax to several of the same: and indeed the commensuating pow-

er of oil is the basis on which the form of most of the surgical remedies is founded.

There are, besides these more general menstrea, several bodies which act as such, in respect only of some particular species; as wax when heated, combines with glass of antimony; the yolks of eggs with oils and water; balsams with some resins, and essential oils with sugar.

S E C T. IV.

Of FIRE, as a Medium of Pharmacy.

BY FIRE, when I speak of it as a medium of Pharmacy, I mean only heat, or that action which ignited bodies exert on others contiguous to them; or within a certain degree of nearness; and not any particular substance or species of body, as the word has by Boerhaave, and many other late writers, been made to signify. The general powers of fire (*i. e.* heat) are extremely various: it produces a rarefaction or expansion in all bodies, but in very various degrees in different kinds: when this is augmented to such a degree, that by the diminution of the specific gravity, and the increase of the repulsive forces, the parts of the body heated fly off from the mass, and exhale in vapour, the body is said to be VOLATILE; but when, on the contrary, no such avolation is produced, the body is said to be FIXED.—It separates the elementary parts of compound bodies, by causing the more volatile to rise and leave behind the fixed; and this not only when such elements are commixed,

but even when joined by commensuating powers; where the degrees of volatility of the bodies are not nearly the same, or where the attraction is not very strong, and one of the bodies highly fixed.—It accelerates most of the commensuating powers of bodies, and excites such as in many instances are not to be found to subsist at all in them when cold.—It accelerates likewise most of the natural changes to which particular kinds of bodies have tendencies; as putrefaction, vinous fermentation, acetification; and applied in a greater degree, with the access of air, produces that change in those capable of putrefaction, which would otherwise be the result of a long time, *viz.* a total dissipation of all the parts, except the earth.—It melts or renders fluid several kinds of solid bodies, which, on the discontinuance of its action, again return to their solid state: the principal of these are wax; concretioned oils; gelatinous parts of animals combined with water, in that state in which they are called

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Sect. 4. *Of Fire, as a Medium of Pharmacy.* 11

Glac or Size; and the gums combined with water in such proportion as to render it solid by their tenacity: in these instances, the liquefaction may be produced without being attended with any other change in the melted bodies, which, on the absence of heat, again resume their solid form.—Metals also, and glass, are fused or liquified with a greater degree of heat, and without alteration if the calcining power of air be excluded, and the admission of certain subtle effluvia prevented:—the gelatinous parts of animals, without the addition of water; amber, and many of the concreted juices of vegetables and sulphur, are liquified by heat; but these cannot be melted without the separation of part of their substance, or some other considerable changes in their texture or qualities.

The property of fire to separate bodies, by means of their varying volatility, is the principle on which three of the most important chemical operations are performed; *viz.* distillation, sublimation, and

calcination: it is the means of analysing most species of bodies, and obtaining their more elementary parts, in such a state as renders them applicable to many purposes, of which, in their compound condition, they were incapable; from hence only can be produced essential and etherial oils;—acid spirits (vinegar excepted);—spirit of wine;—volatile salts; lixivate salts;—the proper calces of metals;—and other earths. It is also, in many cases, intirely requisite, and in others very expedient, to exsiccation. From the aid which fire lends to the menstruative powers, many of the processes of Pharmacy are much facilitated; as extractions made by digestion; and most other solutions;—and corrosions of various kinds. There are, in reality, few operations of Pharmacy (some simple commixtures, pulverization, and cold infusion excepted) where the use of heat is not either absolutely necessary, or least expedient, for the quicker and easier completion of the end.

S E C T. V.

Of the Instruments of Pharmacy.

The Instruments and Utensils of Pharmacy, are,

1. **T**HOSE employed in containing the several species of the *Materia Medica*, and all the preparations and compositions thereof: these are drawers, boxes, bottles, pots, &c.

2. Those employed in adjusting the quantities: which are, for solid bodies, scales and weights; for fluids, measuring vessels.

3. The instruments used for pulverization, and the commixture of bodies varying in their texture, are mortars, or bell metal, marble, and glass with their proper pestles;—a levigating stone and muller; or hand-mills, where large quantities of materials are to be prepared;—scarces or sieves, with proper boxes to them;—knives for taking

taking the matter off the stone when levigated, and disposing it in proper drops or masses; which, where whiteness is required in the powders, ought to be of horn or ivory;—and chalk stones.

4. Those serving for coction or boiling: which are pans of various sizes;—pipkins;—large shallow pans for evaporation, and the preparation of unguents, plaisters, &c. —proper chafing-dishes, or iron stoves, for containing charcoal fires;—ladles for taking out, and spatulas for stirring, the matter, &c.

5. Those necessary for filtering or straining: which are flannel, and flannel bags in the form of cones, called Hippocrates's sleeve;—linen cloth;—filtering paper;—a proper frame to suspend the bags;—funnels of glass and tin;—and earthen cullenders; to this kind may be added a screw-press with iron plates, for the expressing of oils and the straining of storax, &c.

6. Those used for separating oils from water, or other fluids; which are separating glasses of two kinds; the one called a tritorium or separating funnel, which is a bulbous glass, with a perforation at the top, to admit the stem of a common funnel, by which it must be filled, the bottom tapering in a long stem, whose bore must be so small as to suffer only a thread-like stream to pass from it. The other, or common separating glass, is a deep glass, with a spout of the same height, and a little curving at each end, the lower orifice of which must open into the glass, close to the bottom.

Those serving common purposes: as funnels;—knives;—spatulas;—spoons, &c.

The instruments and utensils used in the chemical operations of Pharmacy, are,

Retorts of various sizes;—receivers;—glass bodies;—sublimers;—bolt heads, or matrasles;—tubulated glass heads;—and bells, for distilling spirit of sulphur;—crucibles;—proper tongs made in the manner of a forceps, for taking the crucibles out of the fire;—iron rings with a stem, for cutting the necks of retorts, or tops of bodies and sublimers;—furnaces, which are of three kinds; furnaces for sand heats; furnaces for receiving retorts, or long necks; and those called wind furnaces, used for calcinations and detonations, performed in crucibles, or vessels which are to be placed in the open fire. The first are to be thus constructed: a sand pot should be first procured, which must be of cast iron, and if of the most proper form, cylindrical (though those in common use are a little conical) with a round bottom, and a rim round the top, by which it is to be hung. The sand pot may be of any size, from 20 inches diameter or more, to 6, according to the magnitude of the retorts or glasses intended to be contained in it:—let the lower part of the furnace be then built in the same manner as those for common coppers, &c. that is, a cylinder of brick-work must be made, of about the height of 18 inches, in which a proper area is left for the vacancy which contains the fuel, and the ash hole; the magnitude of this area may be 8 inches long, and 6 broad, if the sand pot be 14 inches diameter, and in proportion for those of other sizes. In this area let bars, and a proper door and frame be fixed,

fixed, so as to leave 6 inches height of the area above the bars for the fuel to lye in. Let a hollow cylinder of brick be then carried up, converging at the top, so as to take the rim, and yet leave an interstice of 3 inches round the pot: the distance the pot should hang from the top of the area, or surface of the fire, should be 8 inches; and a proper slope should be likewise made in the brick-work from the top of the area, which contains the fuel, to the sides of the cylinder. The pot is to be hung by the rim in this cavity, and a course of bricks, or a proper frame of stone-work, raised over the rim, making a regular continuation of the hollow of the pot. At the back of the cavity of the furnace, just under the rim of the pot, must be made a hole to vent the smoke. Behind the sand pot may be placed an iron plate for a sand bath, which must cover an horizontal flew or chimney, of about the depth of 4 inches, and of a proper breadth to suffer the edges of the plate to rest about 2 inches on the brick-work; this flew must be of the same level with the hole which vents the smoke of the furnace, which hole should, in this case, be of the same depth with it, and as long as the figure of the furnace will admit; the extremity of this flew must vent itself into the chimney, which should be of 6 or 8 inches diameter, and of 8 yards height, or higher, if a great heat be required. If there be no plate, the hole by which the chimney communicates with the furnace, may be a square of 5 inches. Sand pots designed for making sublimate of mercury, &c. in matraffes, should be made shallower than those intended

for retorts: the most proper proportion is something more than half the diameter of the matraff. ---The furnace for retorts to be placed in the fire, may be made in the same figure as the above, being fitted to contain the retort, hanging by a rim of lute, in the same manner as the pots. ---The furnace for long necks should be with a square area in the place of the cylinder, through the sides of which proper holes should be left, for the necks of the long necks to be put through, and a dome or covering of fire-stone must be put over the furnace, or, what is more durable, an iron frame filled with lute; the fire-place should also be made bigger, proportionable to the cavity of the furnace: but as these are used at present only for making oil of vitriol, or *aqua fortis*, where large quantities are required, they almost cease to be a part of the apparatus of Pharmacy.

The kind of wind-furnaces generally used, are only a high chimney, in which bars are placed horizontally, at a convenient distance from the bottom, with an iron frame and door in the front, through which the fuel and crucibles, &c. are put in. The front must likewise be open below the bars. Portable furnaces may easily be contrived, for business of a moderate extent; one of which, may by a little diversity in the management of it, answer every purpose of the pharmacist. Lutes, which are of various kinds according to the degrees of heat to which their application subjects them: there are many compositions in use for each purpose, of which these following appear much the best. For luting retorts, stills, &c. in common distillation, take linseed meal,

meal, or common flour one part, whitening two parts, solution of gum arabic in water sufficient to bring them to proper consistence to spread round the juncture: or a bladder smeared with the white of an egg or a strong solution of gum arabic, and carefully put round the juncture, may, in general, be made to answer the same end. Where great nicety is required, and the least escape of the vapour is to be prevented, quick lime, tempered with the drying oil used by painters, should be substituted for the above: but this mixture must be made immediately before it is used: when this kind of lute is employed, great care should be taken to guard against the bursting of the glasses, for it renders them the same as one entire vessel. For luting together the iron pots employed in the distillation of *sal cornu cervi*, *aqua fortis*, &c. and their heads, and all other vessels, where they sustain a burning heat, the following is extremely good; take vitriol calcined to redness, two parts, the scoria of a smith's furnace finely levigated, Sturbridge

clay or Windsor loam dried, each one part, temper them with water to a proper consistence, and beat them well together with a twentieth part of their weight of short hair: this may be likewise applied to the luting retorts, or bodies which are to be put in the naked fire; but its place may be there supplied by the following, which is made with less expence and trouble: Take sand, Windsor, or (if good) common loam, and horse dung, each equal parts; temper them with water to a proper consistence.

As most of the above utensils, &c. are extremely common, and may be had in shops, or of workmen, in a proper form, I have omitted to describe them: but where a variation from the usual structure fits them for peculiar purposes, or where such as are uncommon better suit the end, descriptions, if not given above, will be found, either in the general account of the operations of Pharmacy, or in those particular processes where their use occurs.

S E C T. VI.

The Operations of Pharmacy. Of Pulverization, or Comminution.

PULVERIZATION is that operation, by which cohering bodies are divided into minute parts, or reduced to powder.

PULVERIZATION is of two kinds: levigation or trituration, and contusion or pounding. By levigation we mean the reducing to powder by attrition, or the abrasion of some hard body mov-

ing on the surface of another: the method of performing which, whether by a flat stone and muller, for smaller quantities, or mills for greater, is too generally known to leave occasion for directions. By contusion we mean when the comminution is effected by compression, or the stroke of a falling body: but the mortar and pestle, and

and their manner of use, are, like the former, too common to require any description.

As it is generally necessary in levigation to add some fluid to the matter, the former editions of the Edinburgh, and some other Dispensatories, have directed, in particular preparations, the use of rose, and other simple waters: but they have not the least advantage over spring water; since, in drying the powders, they totally exhale, without having imparted any virtue to the preparation.

Subservient to PULVERIZATION, where extreme fine or impalpable powders are required, two secondary operations are introduced, searcing and washing over. The first is such a common practice, as renders a particular account of it useless; but the latter, whose name we have borrowed from the colourmen, is not so universally known, as to make a description of it impertinent: It is thus performed. The matter being first well pounded and levigated, let it be put into a deep vessel, almost full of water, and there well stirred. Then, having rested a short time, that the grosser parts may sink to the bottom, let the water, and finer part yet suspended, be poured off into another vessel; and suffered to stand at rest, till the powder poured off with the water, has totally subsided: let the clear water be then poured back into the first vessel, with great care not to disturb the subsiding powder; and let the stirring, decantation, &c. be repeated as before, so often as shall be found necessary, to separate all the powder which is of sufficient fineness. The remaining grosser part may be again ground, and the same treatment continued,

till the whole is obtained fine. By this method, executed with care, impalpable powders may be had, with great ease, from even the hardest bodies; chalk, tobacco-pipe-clay, and other earthy substances, that grow soft in water, may be freed from sand, or other impurities, and rendered fine without grinding.

The most necessary caution in regard to PULVERIZATION, is to be careful in accommodating the substance of which the instruments are made, to the nature of the matter subjected to the operation. For, on neglect of this, not only the instruments are liable to be damaged by erosion, or abrasion, but the matter depraved, and the design of the preparation perverted, or frustrated. Earths and metals may be promiscuously powdered in every kind: but salts, when great purity is required, and the salts and corrosions of mercury always, in those alone which are made of marble or glass. By marble is here understood, not only what is strictly so called, but porphyry, agate, or any other stone whatever; and hard wood may also be used, where the necessary attrition is gentle. When stones of a very hard substance, such as the *lapis hæmatites*, are required to be powdered, an iron mortar and pestle should be employed; but if it is necessary they should be extremely fine, a mortar of agate, or flint should be used: for common marble, and the softer stones, are so extremely abraded by them, that they add almost an equal quantity of their own substance to the preparation before it is perfected.

Another general caution necessary to be inculcated, is, that no separation

separation of the matter should be made while it is under the operation; but that all the parcels of powder obtained from any quantity, should be mixed together before any part be used. When this is neglected, as frequently happens, and those parts which first become fine, are separated by the force from the grosser remainder, and used apart, the different parcels may vary much in their virtue and efficacy; and both from the medicine when properly prepared. Thus the resinous parts of jalap, ipecacuanha, and others, being more friable than the fibrous parts, would be first extracted from them; and the dose thereby rendered erroneous, when either of them are used. The same inconvenience, but attended with more hazardous consequences, would happen in the

case of *Mercurius dulcis*; in which the acid rising unequally, during the sublimation, renders some part of the sublimed cake extremely caustic: and this being of a more saline nature than the other part, which contains a greater proportion of the mercury, is much more friable; and consequently liable to be separated in powdering, and to occasion, thence, very malignant qualities in the quantity first obtained.

For light dry substances, resins, and the roots of tenacious texture, the mortar may in some cases be previously rubbed with a little sweet oil: this prevents the finer powder of the first from flying off, and the others from cohering under the pestle. Camphor is commodiously powdered by rubbing it with a little rectified spirit of wine.

S E C T. VII.

Of Expression.

EXPRESSION is, the extracting fluids from solid bodies by violent compressure.

The press is chiefly made use of for forcing out the juices of succulent herbs and fruits; and the insipid oils of the unctuous seeds and kernels. The harder fruits, as quinces, should be previously beat or ground: but herbs are to be only moderately bruised: the subject is inclosed in a canvas bag, and pressed in the common screw press. Juicy fruits in general yield their virtues in tolerable perfection to this process; but aromatics seldom afford any of their peculiar taste and smell; and the fragrance

of tender flowers is absolutely destroyed by it.

Where oils are not designed for internal use, nor any extraordinary elegance in their flavour or scent required, the operation may be much facilitated, by heating moderately the iron plates of the press, betwixt which the matter is compressed: and in the case of linseed, rape, &c. those who make large quantities, usually warm the materials from which the oil is to be expressed: but when oils are to be used internally, or where any particular scent or flavour of the simple is to be retained, all use of heat is to be avoided.

S E C T. VIII.

Of Exsiccation.

EXSICCATION is the reducing bodies to a required state of dryness, by separating from them all superfluous humidity.

EXSICCATION is generally performed by means of heat; by COCTION, INSOLATION, and TORRIFICATION. The first evidently relates only to fluids: the second to fluids and solids promiscuously, the last to solids only. In regard to COCTION or BOILING, directions are needless; unless to take care that, at the close of the operation, the fire be duly suppressed; otherwise, the matter being left dry, will be heated beyond the just degree; and either consumed, or damaged. This precaution is particularly necessary in the case of vegetable extracts; where the least over-heat is apt to make them burn and acquire an empyreumatic scent and flavour.

INSOLATION, or perhaps more properly EXHALATION, is effected by exposing the body to the heat of the sun, till it be sufficiently dry. There is nothing particularly necessary to be observed in the manner, except to increase the surface of the matter as much as possible; for in proportion to that will the exsiccation be completed in a greater or lesser time.

TORRIFICATION (or, as it is sometimes called in the case of rhubarb, TOASTING) is, the exposing solid bodies to the heat of a fire, at such a due distance as will not endanger their being burnt; in order to make them of sufficient dryness to admit of their being powdered. When roots or woods

are thus treated, it is proper first to cut them into slices.

DECANTATION and FILTERING are used subserviently to exsiccation, where large quantities of fluid are to be separated from the solid matter; this is practised in the case of precipitations. There is one kind of filtering appropriated to exsiccation; which may be called filtering by attraction; and is thus executed: a twist of cotton thread being made wet, one end of it is put into the vessel containing the matter to be filtered, and the other suffered to hang over the vessel below the bottom. The thread thus managed will act as a syphon, and draw off the fluid, which will drop from its end till the greatest part be exhausted. This method is used in the preparation of *Ela-terium*; and where the quantity of matter is small, may be found convenient in many others.

The use of the CHALK-STONE is another method of exsiccation, but confined chiefly to the drying of powders after their levigation. It is done by laying the powder, in troches, or large drops, on the stone, and suffering them to remain there till they are of sufficient dryness. As the limitation in the size of which chalk-stones can be procured, is frequently the cause of delay where larger quantities of matter are to be dried; this inconvenience may be remedied by the following expedient. Take a wooden box, of about three inches depth, and sufficiently large, in respect of length and breadth, to afford room for all the
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matter,

matter, when laid on it in drops ; fill it with chalk well dried, and pounded, and cover it with any thin paper of a spongy texture ;

on this paper lay the drops, and they will be dried as quickly as if chalk-stones had been used.

S E C T. IX.

Of Depuration.

DEPURATION is the separating or freeing any fluid from all heterogeneous matter or feculencies, and thereby rendering every part of it of a similar consistence and appearance.

This operation is of three kinds ; the first and most simple is DE-CANTATION. It is performed, by suffering the fluid to stand at rest, till every thing that will subside is collected at the bottom, and then pouring off from the sediment, by a gradual inclination of the vessel, all that part of the fluid which appears clear. This is the general method, where smaller quantities are in question ; but in the case of larger, the greater part may with care be taken off by a proper bowl or dish, and the rest put into a lesser vessel, and separated by inclination.

When fluids are to be freed from oils, or such matter as floats, an instrument called *tritorium*, or separating funnel, is used. These may be made of any form, by which the heavier fluid can be drawn off from below, and the oil, or other lighter matter left in the vessel.

When oils, whose viscid consistence is apt to detain impurities, and prevent their subsiding, are to be depurated, it is proper, previously to decantation, to let them stand some time within a moderate digesting heat ; by which means, being much more liquified, they

will frequently let fall a sediment not otherwise separable.

The second method of depuration is, by despumation. It is performed by adding whites of eggs, first well beat together, to the fluid to be clarified, and after a perfect commixture, making them coagulate by means of heat ; and thereby carried to the surface all the heterogeneous matter which is entangled by them in their coalescence. The impurities, together with the concreted whites of eggs, appearing as a scum on the surface of the fluid, is to be taken off by a spoon, or other convenient instrument.—This method is likewise called clarification.

The third manner of depuration is called filtration, or percolation ; and is performed by passing, without pressure, the fluid to be purified, through strainers of flannel, linen cloth, or paper ; which retaining the grosser parts or feculencies, suffer only the clearer fluid to be transmitted,

When flannel is used, it is most generally made into a bag in the form of a cone, and then called Hippocrates's sleeve ; the basis whereof being turned upwards, and expanded by means of three or four posts, from which it is made to hang, it is then filled with the fluid, which drops from the apex, or small end, into a vessel placed under it. This is mostly used in the case of decoctions, extracts,

and

and all gelatinous and saponaceous preparations, where extreme clearness is not necessary; where despumation has been previously used; or, where the consistence of the matter renders it unfit to pass through paper. As the tenacious consistence of many of these preparations renders their transmission even through flannel difficult, it is proper, in such cases, to filter them while of a boiling heat.

In solutions of salts, spirits, and other limpid fluids, where great transparency is expected, paper, or decantation subsequent to the filtering through flannel, are alone capable of perfectly answering the end.

The manner of filtering through paper, is most generally, to put it into a tin or glass funnel, to whose form it is adapted in the manner of a lining; which, where small quantities are to be filtered, will well enough serve the purpose: but where greater quantities are in question, this method is attended with great inconveniences and delay. The reason is this: if large funnels be employed, the great column of fluid bearing on the middle of the paper, which is unsupported, and being forced by the incumbent weight to adapt itself to the form of the funnel is much creased and bent, seldom fails to burst it, before any considerable quantity has passed through. This may entirely be remedied, by substituting, in the place of the funnel, an earthen cullendar; which every where supporting the paper, secures it from the violence of the incumbent pressure, without in the least impeding the passage of the fluid: and by this means very large quantities may with great ease and expedition be dispatched.

The filtering through paper, where the operation succeeds, never fails completely to answer the purpose; but there are many fluids, whose consistence renders it impracticable; such are all viscid fluids, and those that are in a great degree saponaceous. For these, therefore, a flannel alone can be employed, and even that will in many cases fail, if the matter be not previously made more liquid by a boiling heat.

It is very necessary to be careful in the choice of the kind of paper used for this purpose: there is none at present manufactured, whose texture and strength are perfectly adapted to it; but amongst the kinds which are to be procured, that commonly called bloom paper is much the best. The common sorts are of so slight a substance, and have so little tenacity, except what is owing to gums, that, as soon as they are wet, and the gum is washed from them, they fall to pieces in such manner, that neither the form of the cullendar, nor any other artifice, can make them good.

Linen cloth is also used for this purpose, though very seldom, as it purifies much less effectually than woollen, and has no advantage over it except in those cases where woollen is liable to be choaked, and become impervious to the fluid, as in the solution of gums, and gummy extracts: but it may with great advantage in some cases, be added to paper, where the relaxing quality of what is filtered weakens the texture of the latter; as happens in volatile spirits, and all other saponaceous fluids. In this case the paper should be put over it, and both together laid carefully into the cullendar: and, by this expedient, they will be

found to remedy each other's defects, and make a filter proof against all common accidents.

In the depuration of some fluids, two of these several methods are used conjointly; as filtering thro' flannel may be practised after depumation, and is indeed generally more expeditious and effectual than scumming. Filtering through paper or flannel is also proper to recover the fluid, which remains mixed with the sediment after decantation: and decantation is some-

times employed to make a perfect depuration of those fluids, which the flannel fails to make perfectly clear, and whose viscid consistence forbids their being filtered through paper.

It is proper to observe that the common filtering paper is apt to communicate a disagreeable flavour, and to some things its colour. Hence in filtering liquors whose paleness and colour is of consequence, the part which passes through first ought to be set aside for inferior purposes.

S E C T. X.

Of Digestion.

DIGESTION is the subjecting bodies, included in proper vessels, to the action of a gentle and continued heat.

The application of this operation, in regard to its end, is very various. In some cases it is used with a view to the producing a change in some one single body, as in the instance of the preparation called *Mercurius Precip. per se*; in others, to promote solutions or other combinations; but most frequently, for extraction, or separation by means of fluids, of the required parts of some solid bodies, whose texture impeding the quicker access and effect of menstrua, renders a long infusion, and the relaxation of a gentle heat necessary, in order to their being penetrated; or for accelerating the solution of bodies by menstrua, whose action when cold is not sufficiently vigorous.

The vessels generally used to contain the matter to be digested are **MATRASSES OF BOLT-HEADS**, and sometimes **GLASS BODIES**;

but where the heat is so gentle, as to make no evaporation, the structure is indifferent. In cases where an evaporation does happen, and the exhaling fluid is of any value, the vessels are to be constructed so as to confine the vapour and return it back whence it arose, in a condensed state. This is called **CIRCULATION**, and is commonly executed by inverting the neck of a smaller matrafs, into that of a larger, in which case the conjoined glasses are called a **PELICAN**.

There are several other kinds of pelicans of a more complex structure; but the flask used for Florence wine, divested of the straw work, and inverted into a matrafs with a very long neck, will very conveniently answer all the purposes.

This operation is most generally performed in a sand-heat; and no greater adjustment of the degree of heat is necessary, for the purposes of Pharmacy, than can be there effected.

The degree of heat requisite in digestion, differs according to the kind

kind of the subject: in tinctures made with strong spirit of wine or volatile salts, and in solutions where a great effervescence is apt to arise, a very gentle one should never be exceeded; in aqueous solutions, and most other cases, a greater may be allowed. But it must always be understood to be less than will make the matter boil: otherwise the operation comes not within the proper meaning of the word digestion; which is distinguished from coction.

In circulatory digestions, it is proper to lute the vessels, to prevent the escape of the vapours through the junctures. But in many cases this precaution is extremely necessary; that a small aperture or vent be left: otherwise, an incondensable vapour which arises, will, if it cannot force the lute, burst the glasses. This precaution is necessary in all commixtures of acid spirits with earths, metals, or alkaline salts; or of salts with any substances that can be acted on by them: but in solutions of salts in water, and in extracts of gums or resins, made with volatile salts, wine, or spirits of wine, it may be safely omitted. The college of London have in their Dispensatory, as well accord-

ing to the last revision as the former, used the word digestion in a sense different from that of the above definition: meaning by it, only the suffering the ingredients of certain mixtures to be continued together, without employing the use of heat; which they expressly order on each occasion to be applied or omitted, by saying digest with heat, or, digest without heat. By this less technical use of the word, they confounded the sense of it with that of the word infuse, and have deprived us of the established name of a distinct operation, viz. the acting on bodies by a heat less than that of coction. But as the term, in the sense I have given to it, is useful, has the sanction of a more general acceptance, and is according to the original application of it, (having been introduced first by the alchemists, to express such an operation on mineral substances, as they supposed analogous to that of the human body on its aliment, in which they supposed a gentle heat the principal medium, and since extended to signify, in the language of chemistry, the same treatment of any other substance;) I have chose rather to retain it in this meaning, than to give it up.

S E C T. XI.

Of Solution.

SOLUTION is an intimate commixture of solid bodies with fluids into one equable similar liquor.

The ends of solution are sometimes only the procuring a fluid form of the matter dissolved, without any farther change either in that or the solvent; as in the so-

lutions of salt, gums, resins, &c. where the menstruum is to be considered only as a vehicle: at others, the producing new combinations of such bodies, as when thus compounded, either acquire properties which they had not while separate, or lose such as they then possessed; as in the instances of fixed

alkaline or volatile salts dissolved in vinegar, to form the *Sal Diureticus*; or Mindererus's spirit, where the acid or alkaline qualities of the ingredients are lost, and a neutral salt with peculiar qualities is produced. Solution is also indispensably requisite, in order to the crystallization of salts.

As the nature of solvents or menstrua, as well as the bodies required to be dissolved, are extremely various, the manner of effecting solutions is consequently different. In many cases, simple commixture, by frequently shaking the vessel if small, or stirring the contents if larger, is found sufficient: in others, the aid either of a digestive, or boiling, heat is absolutely necessary.---Sea-salt;---nitre;---all the vitriolic salts;---*sal ammoniacum*;---alum;---soluble tartar;---sugar;---vitriolate tartar;---crude tartar; where a strong solution is not required;---fixed alkaline and volatile salts;---all the gums soluble in water;---camphor;---*sal diureticus*;---in spirit of wine; and metals in their proper menstrua, may be dissolved cold, though not with equal expedition, as when heat is employed.

Calces of metals and mercury in acid spirits;---mercury sublimate in water;---and several of the hardest gum resins, are best dissolved by digestion.

Alum---Glauber's salts---vitriolate tartar---where the solution is not intended to be very weak; borax, and all other salts, where a strong solution is demanded; and ising-glass---require to be boiled.

Solution is much facilitated by the powdering such tenacious bodies as are friable; or slicing, or rasping into small parts, such whose texture admit not of being

powdered: and this is in some cases of such importance, that the operation is extremely tedious if it be neglected.

In solutions of metals, earths, or salts in acid spirits, care should be taken that they be not mixed too hastily: otherwise the ebullition will occasion the mixtures to overflow the vessels; or in some instances, an unmanageable heat, and noxious fumes will ensue.

The form of the vessels is not material in this operation; but the substance of the containing vessel is to be regarded; lest, from the action of the menstruum, it may either be damaged, or the medicine depraved.

Besides the solution made by the adding fluids to bodies to be dissolved, there is another kind called deliquation or solution *per deliquium*. It is performed by exposing the matter to the air, from which attracting water, it collects in time a sufficient quantity to dissolve itself. Cellars, or other damp places, are the most proper for this purpose. Butter of Antimony, which is not soluble in water applied in its grosser form, is easily liquified by this slow action of the moisture in the air.

Table of the Quantities of Water which different Salts require for their Dissolution.

Eight Ounces by Weight of distilled Water dissolved

		oz.	dr.	gr.
Of refined sugar	—	24	0	0
Green vitriol	— —	9	4	0
Blue vitriol	— —	9	0	0
White vitriol	— —	4	4	0
Epsom salt	— —	4	0	0
Purified nitre	— —	4	0	0
Soluble tartar	— —	4	0	0
Common salt	— —	3	4	0
Sal gemma	— —	3	4	0

Of

Of Sal catharticus Glauberi	3	4	o
Seignettes — —	3	o	o
Alum — —	2	4	o
Sal Ammoniac —	2	4	o
Vitriolated tartar —	1	4	o
Salt of hartshorn —	1	4	o
Sugar of lead — —	1	2	o
Cream of tartar —	1	o	o
Borax — —	o	4	2o
Fixt alkaline salt, above	8	o	o
Sal diureticus —	8	o	o
Sugar candy both } brown and white }	9	o	o
Sugar of milk —	o	2	4o
Essential salt of sorrel	o	1	2o

Though care may have been taken in the above experiments, the same issue is not always to be expected, much difference arising from the temperature of the atmo-

sphere, the purity, dryness, and perfection of the salts: the vitriols and artificial compound salts differ remarkably in this respect, as they are more or less impregnated with the acid ingredient. In hot weather, the water will take up near two thirds more of nitre, than it will in very cold: but it is observable, that common salt is less affected in its solubility, by a variation of heat, than any other.

When water is saturated with one kind of salt, it will still dissolve some portion of another, and in some instances hath taken up a third, after refusing any farther addition from the two former, and that without any consequent precipitation.

Water 32 parts by Weight, fully saturated with		Dissolved afterwards	
Nitre - - - -	Sal ammoniac	10	
Common salt - -	Nitre - - -	10	Sal ammoniac 2
Nitre - - - -	Fixt alkali -	7	Common salt 2
Common salt - -	Nitre near -	2	Fixt alkali - 2 1/2
Volatile alkali - -	Nitre - - -	4	Sugar - - - 2
Sal ammoniac - -	Common salt	2 1/2	
Soluble tartar - -	Nitre - - -	2	
Vitriolated tartar -	Fixt alkali -	2	
Glauber's salt - -	Nitre - - -	1	Sugar - - - 1
Epfom salt - - -	Sugar - - -	6	
Borax - - - -	Fixt alkali -	2	

Solutions made in water, and in the proper menstrua of the native spirit of wine, possess the virtues of vegetable and animal of the body dissolved; hence, are matters.

S E C T. XII.

Of Fusion.

FUSION is the reduction of metals, salts, &c. into a state of fluidity by fire.

This operation is so extremely simple, and so commonly prac-

tised, that it appears needless to give directions in regard to it, unless such as relate to particular processes, which will of course be there found.

S E C T. XIII.

Of Corrosion.

CORROSION is the acting on bodies, by means of proper menstrua, so as to produce new combinations, and a change of their form, without converting them to fluidity.

This operation depends on the same principles as solution, and only differs from it in respect to the form the new combinations assume.

The subject of this operation, as it is used in Pharmacy, is principally metals: and the manner in which it is generally performed, is of two kinds. The first, and most simple, is when the body to be corroded, is put into a fluid menstruum, and either taken out instantly, and set in a moist place, as in the method commonly practised in the making cerus; or continued therein, till the whole of the matter be corroded; as in the preparation of turbeth mineral from oil of vitriol and mercury. This may be properly called Corro-

sion by IMMERSION. The other, called in doctimaſtic Chemistry CEMENTATION, is performed by exposing the body to be corroded to the action of vapour or steam, expelled by heat, from what is used as the menstruum; as in the process given by the Edinburgh Dispensatory for making cerus.

There are nevertheless other methods by which corrosions are in some instances made; as in the *rubigo chalybis* of the London dispensatory, where sprinkling or rubbing the body over with the menstruum is ordered in the place of dipping which the form of steel-filings made inconvenient; and some others which from the particular texture of the matter become necessary. Thus, in the corrosion of mercury by sulphur, in the preparation of Æthiop's mineral, trituration, or sometimes fusion, is employed; and in the *chalybs cum sulphur. præparat.* the heated steel is only touched with the sulphur.

S E C T. XIV.

Of Extraction.

EXTRACTION is the separating by means of solution some parts of a substance from others; and if the humidity is evaporated the remainder is called an extract.---Thus if plants containing a resin are digested in spirit of wine, a resinous extraction is produced, and if the spirit is evaporated, a resinous extract remains.

Some substances yield their virtues totally to water, as saffron; others to spirits of wine; and some partly to one and partly to the other—*vide menstrua*. Heat greatly

expedites extraction; but proves injurious to some substances by occasioning the menstruum to take up their grosser and more ungrateful parts. The Peruvian bark requires a boiling heat; but even a small degree of heat is greatly prejudicial to the fine bitter of *carduus benedictus*; this plant infused in boiling, or lukewarm water gives out a nauseous taste capable of exciting vomiting, but yields to cold water a grateful balsamic bitter.

As heat promotes the dissolving power of liquids; so cold diminishes

it. Hence tinctures, extractions made by a considerable heat, deposit in cold weather part of their contents, and thus become proportionably weaker, a circumstance that deserves to be attended to.

Extracts are rarely to be depended on as medicines; their strength is uncertain, being frequently injured by the heat used in preparing them. Though placed

over a heat not exceeding that of boiling water, as the evaporation proceeds, the consistence of the evaporating fluid increases, and thus it retains more and more heat, of which the operator not being aware, or the subject not well admitting it, is considerably injured in its qualities, yea often suffers a degree of burning.

S E C T. XV.

Of Precipitation.

PRECIPITATION is the separating solid bodies from any fluid menstruum wherein they are dissolved, by the addition of a third body, which, counter-acting the power of the menstruum, causes that which was dissolved to regain its solid form, and subside in the state of a powder.

This is to be performed by a mixture of the precipitant with the solution so to be precipitated, only with this caution, in respect of bodies which produce much ebullition on their mixture, that the pre-

cipitant should be added gradually, lest they overflow the vessel.

After the precipitated sediment is perfectly formed, it must be recovered from the fluid by a proper method of exsiccation; to which, in the case of saline bodies, edulcoration is likewise previously necessary. This is best performed by filtering off the fluid, and laying out the wet powder, when of a consistence, in drops or pieces, as was before directed in the preparation of powders by levigation.

S E C T. XVI.

Of Distillation.

DISTILLATION is the condensing, and collecting in a fluid form, by a proper apparatus, the steam or vapour of bodies previously rarified by the application of heat.

The principle on which this operation is formed is too obvious to demand any illustration: since the evaporation of fluids by heat, and their reduction to their former state as they grow cold again, are facts which fall within the notice of every one,

There are two kinds of distillation; by one the more subtile and volatile parts of liquors are separated from the grosser; by the other, liquids incorporated with solid bodies are forced out from them by vehemence of fire.

Distillation is performed by several kinds of apparatus, for all which the general name is, an **ALEMBIC**; to form each kind whereof, two, or more, vessels are conjoined.

The vessels required are of three kinds:

kinds: a proper body or reservoir to contain the matter while the heat acts on it,---a refrigerant to condense the vapour as it rises,---and a receiver to contain it when condensed. These three intentions are, in most kinds of alembics, executed by three distinct vessels: but in the instance of the retort and receiver, the whole is effected by two; the neck of the retort, and the increased magnitude of the receiver, performing the office of a condenser.

The alembics most generally in use are the WORM-STILL and RETORTS. The first is of modern invention, and may be esteemed as one of the most considerable improvements of the chemical art; since it has furnished a method of executing, in several cases, one of the most useful operations with the greatest convenience and expedition, and with an extent in regard to quantity that has no limitation: whereas, the kind of stills used before for the same purposes, from the defect of a greater surface, were liable to have the condensers heat beyond the condensing point; and thence to be blown off, with great loss of the matter, and danger to the operator.

The other general method is by the use of RETORTS and RECEIVERS: which will very commodiously perform all kinds of distillations, where the limitation of quantity and time are not of importance; but in such cases, they must give place to the worm-still, in regard to those substances which admit of its use; the defects of the other being entirely remedied in this. In all those instances however, where the corrosive power of the matter permits the use of the glass only, retorts are preferable to

every other kind of alembic hitherto invented. In the distillation of different substances, and for different ends, the form of the retorts ought to vary. For the distillation of acid spirits, whose fumes can be suspended only in a great degree of heat, they should be made with a large bulb and low long neck, and placed deep either in the fire or the sand, that the vapour may pass into the depending part of the neck, and not circulate in the body of the retort. But when retorts are employed for the rectification of volatile spirits, vinous spirits, or ethereal oil, as those of turpentine or amber; the contrary is then proper; that the body being tall, and rising far out of the sand, may condense the vapour of the grosser and heavier matter, and suffer the more volatile to pass pure into the neck.

The greatest part of the distillations in retorts may be made in a sand heat, which indeed is most suitable to them: but where a very intense degree of heat is required, the retort, being first coated with a proper lute, must be set in the naked fire; but they are much less manageable in this way than when placed in sand. They are to be fixed however by means of a rim formed of a lute, and projecting from it in such manner, that the retort may hang thereby when it is put into the furnace. But great care must be taken, that the lute be thoroughly dry, and the texture of the rim of a sufficient tenacity, before the firing the retort be attempted; for otherwise an unavoidable destruction of it will follow. But unless in experiments, for which coated retorts may well enough serve the purpose, the methods mentioned below,

low, of iron pots of earthen long necks are to be preferred.

For the distillation of animal substances,---acid spirits from salts, ---and such bodies as require a great degree of heat, when larger quantities are demanded, a deep iron pot, with a head of cast-iron or earthen ware, is employed: to which is sometimes fitted, for the increase of condensing surface, a large earthen jar, with a receiver fixed to it. But where only smaller quantities are desired, a coated retort, placed in the fire, with a large receiver adapted to it, may serve the same end.

Earthen pots, called long-necks, are likewise used for the distillation of oil of vitriol,---*aqua fortis*,---and other bodies which acquire a very great heat; but they are now much disused in Pharmacy; oil of vitriol being made by persons who carry on large works; and *aqua fortis*, by those who want it for the purposes of medicine, by Glauber's method, which admits of the use of the retorts in sand. Long-necks are placed naked in the fire, and the necks being put through a hole in the side of the furnace, a receiver is there fixed to them.

These are the general methods by which distillation is performed; though for particular processes others have been contrived: as the bell for the distillation of oil of sulphur; and the refiner's alembic for quicksilver; but as they relate only to those single processes, I shall speak of them as they occur. Distillation in *balneo Mariæ* is performed by putting a small metal-line still into another vessel, properly formed to boil water, with which its vacuity left by the still is filled.

The substances proper to be dis-

tilled by the worm-still are vinous spirits,---simple waters,---oil of turpentine,---and other ethereal or essential oils, when made with water.

The substances proper to be distilled in retorts are, acid spirits, when made by Glauber's methods, ---*spiritus nitri dulc.*---volatile spirits,---and several others of particular kinds, as wax: amber, and antimony, when distilled with mercury sublimate for the butter; mercury *per se* is ordered also by the college of London to be distilled in retorts, but without a particular management it is impracticable, and in all cases troublesome, and less eligible than the method used by the refiners, which I shall shew when I speak of that process.

Animal substances, when in quantities, require to be distilled in an iron pot; and *aqua fortis*, when made from crude vitriol, either in the same or long-necks; only the *aqua fortis* being less volatile, and requiring more heat, the vessel used for the distillation of it must be set deeper in the fire than those used in animal substances.

Distillation in *balneo Mariæ* being necessarily confined to those substances, which shall rise with a less degree of heat than will make water boil, is therefore only proper for ethereal or essential oils; volatile spirits; and vinous spirits. The new London Dispensatory orders this method to be used for the spirits of lavender and rosemary; and the Edinburgh Dispensatory directs it for the spirit of scurvy-grass;---the compound spirit of lavender;---and the saline aromatic spirit. But a gentle sand-heat, if the fire be timely suppressed, when the proper quantity of the matter

is come over, is as effectual and more commodious.

The first subject of caution in regard to distillation is, to take care to leave sufficient room in the containing vessel, or body, for the expansion and ebullition of the matter to be distilled: otherwise it is very apt to overflow into the neck, and break the vessels, if of glass; ---hazard the firing the building in the case of vinous spirits, ---and frustrate the operation in all. This is to be particularly guarded against in the distillation of *aqua fortis*, and the spirit of salt by Glauber's method; and of amber; as also in the rectification of the spirit of hartshorn; all which, especially in the beginning of the operation, are extremely subject to make a very great ebullition, and to froth up into the neck of the retort. In these cases therefore, at least one third of the retort should be left unfilled; and even then, without a very careful management of the fire, they are not exempt from danger.

Another requisite caution, is that the condensing surface be sufficiently large, and the heat accommodated to it; for if an error of this kind occur in the case of the wormstill, the head will be blown off, and the vapour dissipated with considerable loss; and if in that of vinous spirits, to the great danger

of those who may happen to be in the place.

It is necessary likewise, in distillation as well as digestion, to avoid luting the vessels too closely with any tenacious substance; for if a sufficient vent be not left, the vessels will be in extreme danger of bursting.

In order to complete the end of some distillations, another operation becomes necessary in many cases; the separating of the oil from the spirit. This is performed by one of the two kinds of separating glasses before described. See instruments. The manner of using the one of which is to stop the lower stem of the *tritorium*, and fill the bulb through the hole at the top, by means of a common funnel, then covering this hole at the top with the thumb, and opening that at the end, the fluid, by giving a gradual admission to the air at the upper hole, by raising a little the thumb which covers it, may be emitted by degrees, till only the lighter, which is required to be separated, remains. The manner of using the other is only to fill the glass with the fluids to be separated, and pour off the heavier through the spout: this is much the easier and more commodious method, where large quantities are to be separated.

S E C T. XVII.

Of Sublimation.

SUBLIMATION is, the condensing, and collecting in a solid form, the fumes of bodies raised from them, by the application of a proper heat.

SUBLIMATION is in all respects the same with distillation; except that in the first, the produce is solid, in the latter fluid. The only variation thereof, necessary in the operation,

operation, is, the accommodating the recipient part of the apparatus to this difference, which admits, in most cases, that one vessel may perform the office both of condenser and receiver; as the matter cannot, like fluids, flow to another part, but must remain where it first settles; except in some instances, where the matter is extremely volatile, or, where a fluid rising with it, renders a depending receiver requisite.

The vessels proper, in respect of the different subjects of this operation, vary in their structure and the substance of which they are made, as well on account of the degree of heat requisite to be employed, as the nature of the matter to be sublimed; since corrosions of them are here and indeed in all other cases, to be carefully avoided. In sublimations of mercury, whether combined with acids or sulphur, of *sal ammoniacum*, and of sulphur alone, a single vessel may answer all the purposes; as the necessity of a great heat, to keep them in the condition of fumes, renders the upper part of the glass capable of detaining them, when they are raised thereto: but it is proper, in these instances, that a glass in sand, or earthen-ware, should be used. A glass body, in a strong sand heat, may very well serve for all these: but sublimate of mercury is frequently sublimed in a bolt-head, or matrafs; and the factitious cinnabar, by those who make large quantities, in an earthen vessel made in the shape of an egg. In the sublimation of volatile salts, salt of amber, and

flowers of benjamin, a container and condenser are separately necessary, and they may, in all these cases, be extremely well supplied by a retort and receiver; though bodies, with alembic heads, and receivers of glass fitted to them, have been generally recommended in several of them: but the trouble of luting two junctures, the difficulty of fitting them to each other, with several other reasons, make retorts far more convenient. A retort and receiver are likewise proper in the case of cinnabar of antimony; for though the cinnabar might be easily retained in one glass, the butter of antimony makes a receiver necessary.

In sublimations of factitious cinnabar, mercury sublimate, and *sal ammoniacum*, &c. it is sufficient to cover the aperture, or neck of the vessels with a piece of tile, and in the sublimation of cinnabar of antimony, and flowers of benjamin, in retorts, it is unnecessary to lute on the receiver; but in the sublimation of volatile salts, it is requisite to lute the vessels as securely as possible, leaving only a small vent, till they attain the greatest heat they are to suffer during the operation.

The requisite degree of heat in sublimation, varies almost in every different subject of the operation. The limits are from the greatest degree that can be given in sand, to a degree something less than that which will make water boil. If the matter sublimed concretes into a mass it is called sublimate, if into a powdery form, flowers.

S E C T. XVIII.

Of Crystallization.

CRYSTALLIZATION is, the reducing salts to their proper specific or CRYSTALLINE form, so called from its resemblance to crystals.

In order to understand this definition, it is necessary previously to know, that it is a property of all kinds of salts, when they are dissolved in such a quantity of water as is not sufficient to keep them in that state, and prevent their coalescence, to form themselves, into similar figures of a peculiar kind, each according to its species; and these, in several instances, having the exact resemblance of crystals, gave occasion to their borrowing that name.

As the nature of saturation, and the variation of the dissolvent power of hot and cold water, which are principles on which this operation depends, have been before explained, under the heads of *Solution* and *Menstrua*, it is needless to repeat the same here, or to be more explicit than to say, that it is effected by the difference of the quantities of the salts which hot and cold water will dissolve.

The intentional end of crystallization is, to render the salts pure and distinguishable, as well by freeing them from feculencies, and giving them their proper form, as by separating each kind from every other with which they may happen to be mixed. This it effectuates completely, if well executed; and it is attended with this particular advantage, that in this state the species of any salt

may certainly be distinguished, in general, by the appearance only.

The manner of performing it is, to make a saturate solution of the salts in boiling water, either by adding the salts, if dry, to the water; or, by evaporating the redundant water, if they were before dissolved: this is known by a pellicle on the surface of the liquor; and then putting the solution into a proper vessel, and suffering it to stand at rest in a cool place till the crystals are formed. This generally requires some days; but it is perfected in a longer or shorter time, according to the degree of heat or cold of the weather. It is always best not to be too hasty in taking out the crystals; for there will be some continuance of their increase for a considerable length of time, and the quantity thereof obtained by each operation proportionably greater. When the full quantity of crystals is formed, the remaining solution (called in this case the *mothers*) is to be poured off, and what the crystals retain must be drained from them; which may be best done by putting them into an earthen cullendar, on a sheet of filtering paper. After they are thus freed from all the fluid which will drain from them, they must be spread on a clean board or table to dry: but great care must be taken, that no dust or sulphureous steam be suffered to approach them, for the slightest circumstance of that kind will deprave their colour; on which, though
not

not their efficacy, their commercial value greatly depends.

In refining salt-petre, which is done by crystallization, where the quantity is great, large iron, or copper plates, placed obliquely over a gentle fire, are made use of, to dry the salts with more expedition: but as the quantities demanded for the purposes of Pharmacy, may with little trouble be dispatched by the common method, it is unnecessary here to enter into a description of them.

The crystals being taken away, the mothers, or remainder, may be again evaporated, or dry salts may be added to them whilst boiling, till a saturation of the hot solution is again produced: and on their being treated as before, a second quantity of crystals will be obtained. By the same method repeated, nearly the whole quantity of salts may be converted into crystal: and the small remainder may be either kept to be added to some future quantity, or the salts recovered in a dry state by evaporation.

All the alkaline salts are excluded from this operation; fixt alkalies never assuming a crystalline form, and the volatile ones escaping before the water evaporates. Some of the neutral kind, with certain metallic bodies for their basis, are so strongly retained by the aqueous fluid, as not to crystallize, unless some other substance is added with which the water has a greater affinity. By the table of affinities it appears, that spirit of wine is such a substance—if as much spirits of wine as equals a twentieth part of the liquor be added, or rather less, large and beautiful crystals, scarce

to be had by any other means, will be obtained.

This is all which is necessary when the salts are pure: but if they are mixed with any heterogeneous matter, or feculencies, it is requisite that, before the solution is set to shoot, filtration should be used. See Depuration.

When it is necessary to filtre nitre, *sal ammoniacum*, and such other salts as water will dissolve in a large proportion, it is proper that the quantity of salts should be considerably less than the whole of what the boiling water could dissolve. For if the solution be then saturate, the salts are apt, as it cools in the filter to shoot there, and choak it.

In crystallizing larger quantities of salts, sticks are usually put cross the vessels; on which the salts form, and their figure is thereby the more perfect.

There is no particular form necessary for the vessels which are employed in crystallization. But it is very proper to have regard to the substance of which they are made; otherwise a corrosion of the vessel, and consequent depravation of the salts, or an unnecessary waste thereof, will frequently happen. For Glauber's salts, vitriolate tartar, sea salt, nitre, and green vitriol, provided they contain no redundant acid, iron may be used for their solution; but the crystallization should be made in glass receivers with wide necks, wood being liable to give a brown hue to the salts. But *sal ammoniacum*, regenerate tartar, and the salts of metals, require to be dissolved in glass. Copper vessels should be always rejected: but earthen ones may, in default of others,

others, be used for both purposes; especially where the cost of the salt is inconsiderable: though a waste always follows their use in

consequence of their imbibing the solution, and suffering an exhalation of it on their exterior surface.

S E C T. XIX.

Of Fermentation.

FERMENTATION is the effecting that change in certain vegetable juices (of a saccharine nature) whereby vinous and acetous liquors are produced.

By fermentations, the following productions are obtained from vegetables, viz. *vinous liquors, inflammable spirit, tartar, and vinegar*, and an incoercible vapour, usually called *fixable air*.

This operation, in respect of its great ends, the production of vinous spirits and vinegar, ceases now to be any longer a part of the practice of Pharmacy; as they may be procured from those who prepare them for common purposes, with less expence and trouble, and are therefore, at present, considered in medicine as simples. The only place fermentation retains in the modern practice is, where it is used preparatorily to the distillation of simple

waters; and it is even there omitted in the prescriptions of the London Dispensatory. It is, however, in that case thus performed. The substances, being first bruised, are to be infused in water, to which a quantity of yeast, sufficient to excite a ferment, should be added, and continued there, till from the effervescence and froth it appears that the fermentation is begun; and then the whole should be immediately committed to distillation. There are no other rules or cautions necessary in regard to this operation, but that the matter should be so carefully observed as to be taken at the due time; and that the yeast contain nothing capable of imparting an improper flavour to the distilled water; which may otherwise very easily happen, when it is procured from the brewers.

S E C T. XX.

Of Incorporation.

INCORPORATION (as the name of an operation) means the uniting oleous and terebinthinate substances with water, into one equal body, by the mediation of a third.

The principle on which this operation is performed is obviously the menstrual powers before explained. The intention of it is to reduce those bodies, which

are of dissimilar consistence and averse to combining, into one equal regular form. The matter which is employed mediately to produce this conjunction, is volatile or lixivate salts, simply (in which case the union is not permanent) or actuated with the saline part of lime;—the yolks of eggs;—and sometimes sugar. The method of commixing them, when alkaline

alkaline salts are used, is to shake the whole well together: but when the yolk of an egg is employed, the balsam or oil should be first united with it, by means of trituration, and then both added to the water, and the whole afterwards well shaken together: sugar is

only used for this purpose in the case of balsams and essential oils; with the first it is to be mixed by trituration, and then added to the intended fluid; the latter is to be dropt upon the sugar, and then treated as the other.

S E C T. XXI.

Of Calcination.

CALCINATION is the separating by means of heat, or fire, the more fixed from the volatile parts of any compound body.

Calcination has, by some, been very improperly called chemical pulverization, as if the whole intention consisted in the reducing bodies to powder by means of heat. But this is an extreme great mistake; for though the destruction, or diminution of the tenacity, is often the consequence, and sometimes, perhaps, the intentional end of calcination; yet it is in many cases otherwise, since *lapis calaminaris*, and other bodies, after they have suffered what is every where called calcination, are yet very far from the condition of a powder: and if the making bodies fit, by means of fire, to undergo pulverization, alone constituted calcination; then that kind of exsiccation which is employed on rhubarb, and called torrifying, would of course come within the meaning of the term, contrary to the universal use of the word.

There are others that, not even making the assistance of fire necessary, call all the methods by which bodies are reduced to the state of powders, calcination. But such diffusive extensions of the sense of

terms, where they are made to comprehend a multiplicity of things not allied by any just analogy, are highly prejudicial; obstructing those clear and communicable notions which distinct and properly limited terms afford; and introducing that perplexity and confusion which generally so much abounds in medical writers.

There are several species of calcination, which differ in regard to the effect with which the fire is suffered to operate on the calcined matter. As sometimes, the whole of the volatile parts are expelled by the continuance or violence of the heat; while at others, by a gentler degree, or shorter duration, some of the most volatile only are raised; and others, which, by a greater degree or prolongation of it, would also follow, are retained. Thus, in the calcination of tin, all the sulphureous, which is the only volatile part of it, is drove off; and an earthy calx, no longer changeable by any degree or duration of the heat is left behind. But in the calcination of *lapis calaminaris*, the crude sulphur and arsenic alone are dissipated; while the zink, which with a greater degree of fire would be all likewise drove off, is left with the earthy part,

part. Calcination may therefore be divided into perfect, or where the utmost change (except vitrification) which can be effected by heat, is brought about; and imperfect, where the degree of heat is limited, and only a part of the alteration it is capable of producing is suffered.

CALCINATION by **COMBUSTION** is where the body being kindled, supports, with the assistance of the air, the fire which calcines it: as in the instance of coals in a culinary fire.

Vegetables are the only substances calcined for the purposes of pharmacy, which admit commodiously of this method: and when they are so treated, the operation is by some called incineration. The manner of performing it is only to dry the materials, and having placed them so that the access of air may be as great as possible, to set them on fire.

CALCINATION by **CALEFAC-TION** is where the calcining heat is not generated in the body itself, but imparted to it from some external fire.

The methods of performing it vary almost as often as the different kinds of matter, which are made subjects of the operation, and will be exhibited when we treat of the several respective processes; only these general directions may be attended to with advantage. That regard should be had to the substance of the vessel used to contain the matter. For earths, or metals, any sort whatever, may be promiscuously used: for salts of metals, such as the vitriols, dissolved mercury, &c. only earthen ware or glass. The regulation of the degree of fire is equally important: after antimony and lead are re-

duced to powder, the heat must be kept moderate, or a vitrification will ensue: in respect of iron and copper, a greater may be suffered; provided it be under that which would bring them to fusion: in the case of hartshorn, tin, or the incineration of vegetables, any degree producible in such furnaces as are commonly used, may be allowed.

Calcinations of this kind are greatly expedited by the increase of surface which is given to the calcined matter, and the copious admission of air through that part of the furnace wherein it is placed: the same end is also answered, by frequently stirring it with an iron spatula, or some such instrument. This, in the case of lead and antimony, is particularly necessary. Calcination is much facilitated by pulverizing the bodies to be calcined; except in the case of tin and lead, which are unavoidably fused in the operation.

CALCINATION by **DETONATION** differs from **CALCINATION** by **COMBUSTION** only in this; that, whereas in the latter, the assistance of the air is requisite, in this, that want is supplied by adding nitre to the matter; which, producing a much quicker and more intense fire, renders the operation much shorter, and in some cases more effectual.

In order to understand the principle of this operation, it is necessary previously to know, that the afflux of air, or a proper substitute, is always necessary to support a fire; that nitre is such a substitute, and the only one hitherto known: that if nitre be added to any matter containing phlogiston, or the sulphureous principle, and a heat be imparted to the mixture, suffi-

cient

cient to bring the nitre to fusion, fire will be produced, and a calcination effected, even though all air be excluded, as perfectly as if its free admission were allowed.

The manner in which this operation is generally performed is as follows: a sufficient quantity of nitre is mixed with the matter destined to the operation; a crucible, or other vessel capable of bearing the fire, is then to be heated red-hot, and the matter gradually thrown into it: an explosive effervescence soon follows the injection of each quantity; the cessation of which effervescence each time is the proper limits of the intervals which must be observed, till the whole is thrown in, and the operation consequently finished. This is the most expeditious, and a very efficacious, method of perfect calcination, but is generally attended with a considerable loss of the matter, the intenseness of the heat, and the violence of the explosion, contributing to its dissipation. But the greater facility with which it may be performed in many cases,

ballances the loss, and renders it preferable to other methods; and in some preparations, as the *crocus metallorum*, the same effects cannot be otherwise produced.

It is necessary to know, that whenever nitre is thus used, there remains after the detonation, a quantity of fixed alkaline salt, which was before the basis of the nitrous salt, and being now freed from the acid spirit, which in burning leaves it, and combines with the phlogiston, or proper sulphur, re-assumes its own nature; or a neutral salt formed from this and the vitriolic acid, if the body contained common sulphur. A proportion of this salt, in some preparations, as in the last mentioned, joins with the calcined matter; but the rest in that, and the whole in almost all other preparations, is to be separated from them by water. This washing or ablution is generally called *EDULCORATION*; and is used likewise for the separating salts from any other preparations not calcined.

Rules of the London Dispensatory, in relation to Weights and Measures.

THERE are two kinds of weights in present use; the one by which gold and silver, the other by which most other commodities are sold: the first is called *Troy weight*, the latter *Avoirdupois weight*. In these the pounds are divided in a different manner, the pound in *Troy weight* having only

12 ounces, in *Avoirdupois* 16. They vary also in the weight of the pound, as well as the ounce; the goldsmith's pound being less than the other, the ounce greater.

In Pharmacy we use the goldsmith's pound, though not divided as by them; but in the following manner:

The pound,	} is equal to {	twelve ounces.
The ounce,		eight drams.
The dram,		three scruples.
The scruple,		twenty grains.

The liquid measures in use are likewise different; some being applied to the measuring beer, others wine; we employ the latter, or

wine pint, for which the *Latin* word used in Pharmacy is *Libra*.

This pint we divide in this proportion:

The pint, }
The ounce, } is equal to { sixteen ounces.
 } { eight drams.
 A gallon contains eight pints.
A spoonful is equivalent to half an ounce.

As the *Latin* word *Libra* is used promiscuously to signify either a pound or a pint, which in most kinds of liquors are not really equal; it is always necessary, when

the word is used in medicinal prescriptions, to prefix P. or M. to distinguish when we mean weight, and when measure.

Weights and Measures of the Edinburgh Dispensatory with their Characters.

gr. a grain, }
℞ a scruple, } is equal to { twenty grains.
ʒ a dram, } { three scruples.
℥ an ounce, } { eight drams.
℔ a pound, } { twelve ounces.

By a SPOONEFUL, is understood half an ounce weight in syrups, and three drams weight in distilled waters.

A GALLON is equal to eight pounds.

Ana signifies, that each of the ingredients, which immediately precede it, is to be taken in the quantity next expressed.

Though the pint is called by *Latin* writers *Libra* or pound, there is not any known liquor of which a pint measure answers to the weight; a table of the weights of certain measures of different fluids may be useful and is therefore inserted.

Table of the Weight of different Liquids.

	Pint weighs			oz. meaf.	dr. meaf.	
				weighs	weighs	
Inflammable spirits.						
Ætherial spirit of wine	11	1	36	336	42	
Highly rectified, ditto	12	5	20	380	47½	
Common rectified, ditto	13	2	40	400	50	
Proof spirit	14	1	36	426	53	
Dulcified spirit of salt	14	4	48	438	55	
Dulcified spirit of nitre	15	2	40	460	57½	
Wines.						
Burgundy	14	1	36	426	53	
Red Port	15	1	36	456	57	
Canary	15	6	40	475	59½	
Expressed oils.						
Oil olive	14	0	0	400	52½	
Linseed oil	4	2	8	428	53½	
Essential oils.						
Oil of Turpentine	12	1	4	364	45½	
Orange peel				408	51	
Juniper berries				419	52	
Rosemary				430	54	
Origanum				432	54	
Caraway seeds				432	54	
Nutmegs				436	54½	
Savin				443	55½	
Hyssop				443	55½	
Cumin seed				448	56	
Mint				448	56	
Pennyroyal				450	56¼	
Dill seed				457	57	
Fennel seed				458	57	
Cloves				476	59½	
Cinnamon				476	59½	
Saffafras				503	63	
Alkaline liquors.						
Lixiv. Saponar. Ph. Lond.	16	0	0	480	60	
Spirit of sal ammoniac	17	1	10	515	64½	
Strong soap-boiler's ley	17	6	24	534	67	
Lixivium of Tartar	24	0	0	720	90	
Acid liquors.						
Wine vinegar	15	3	44	464	58	
Beer vinegar	15	6	56	476	59	
Glauber's spirit of salt	17	4	0	525	65½	
Glauber's spirit of nitre	20	2	40	610	76	
Strong oil of vitriol	28	5	20	860	107½	
Animal fluids.						
Urine	15	5	20	470	59	
Cows milk	15	6	40	475	59½	
Asses milk	16	0	0	480	60	
Blood	16	1	4	484	60½	
Waters.						
Distilled water	15	1	50	456	57	
Rain water	15	2	40	460	57	
Spring water	15	3	12	462	58	
Sea water	15	5	20	470	59	
Quicksilver.	214	5	20	6440	805	

A Table of the Specific Gravity of different Solids.

Aloes wood	1,177	Mercury	14,000
Alum	1,738	Mercury sublimate corrosive	8,000
Amber, pellucid	1,065	Yellow emetic	8,235
Ambergris	1,400	Merc. dulcis, sublimed twice	12,353
Antimony	4,000	thrice	9,882
Crocus of	4,500	four times	8,234
Glas	5,280	Mother of Pearl	2,480
Regulus	6,622	Myrrh	1,250
Balsam of Tolu	,896	Nitre	1,900
Bezoar, Occidental	1,500	Opium	1,363
Oriental	1,530	Peruvian bark	7,784
Bismuth	9,700	Potash	3,112
Borax	1,720	Rhodium wood	1,125
Box wood	1,031	Sal Ammoniac	1,453
Calamine	5,000	Enixum	2,148
Campeachy wood	,913	Gemmæ	2,143
Camphor	,996	Mirabilis Glauberi	2,246
Cerusse	3,156	Polychrestus	2,148
China root	1,071	Prunellæ	2,148
Cinnabar of Antimony	6,044	Salt of Steel	1,830
Facitious	8,100	Common	2,125
Copper	9,000	Volatile of hartshorn	1,496
calcined	5,453	Sassafras	,482
Coral, red	2,689	Saunders, Red	1,128
white	2,500	White	1,041
Crab's eyes	1,890	Yellow	,809
Fir	1,550	Scammony, resin of	1,200
Frankincense	1,071	Silver	10,500
Gold	19,640	Sugar thrice refined	1,606
Guaiacum wood	1,333	Sulphur	1,800
Bark	1,250	Tartar, crude	1,849
Refin	1,224	crystallized	1,900
Gum Arabic	1,375	emetic	2,246
Tragacanth	1,333	vitriolated	2,298
Hæmatites	4,360	Tin	7,156
Ichthyocolla	1,111	Tutty	4,615
Iron	7,632	Vitriol, Green	1,764
Lead	11,310	White	1,900
Litharge of Gold	6,000	Englisch	1,880
Silver	6,044	Dantzick	1,715
Mastich wood	,849	Calcined red	1,900

Table of the Specific Gravity of Liquids.

Antimonial caustic	2,470	Oil, expressed of Olives	,913
Aqua fortis	1,300	Oil of Vitriol	1,877
Aqua regis	1,234	Spirit, acid, of Nitre	1,338
Honey	1,450	dulcified	1,000
Milk, Cows	1,039	of common Salt	1,154
Goats	1,009	dulcified	,951
Oil, distilled of Caraway Seeds	,940	of Vitriol	1,203
Cinnamon	1,035	Spirit of Hartshorn	1,073
Cloves	1,034	Honey	,895
Cummin Seed	,975	Sal Ammoniac	,952
Dill Seed	,994	Silk	1,145
Fennel Seed	,997	Tartar	1,073
Hyssop	,986	Urine	1,120
Juniper berries	,911	Wine, proof	,927
Mint	,975	common rectified	,866
Nutmegs	,948	very highly rectified	,825
Orange Peel	,888	Vinegar, of Beer	1,034
Origanum	,940	of Wine	1,012
Pennyroyal	,978	distilled	1,030
Rosemary	,934	Water, distilled	,993
Saffrafas	1,094	Rain	1,000
Savin	,986	River	1,009
Spike	,936	Sea	1,030
Tanfy	,946	Wine, Burgundy	,953
Turpentine	,792	Canary	1,033
Oil, expressed of Linfeed	,932	Red Pontack	,993

Table of the Quantity of fixt alkaline Salt necessary to saturate different Acids.

64 parts of	<div>Oil of Vitriol</div> <div>Spirit of Nitre</div> <div>Spirit of Salt</div> <div>Concentrated Spirit of Vinegar</div> <div>Distilled Vinegar</div> <div>Vinegar</div>	<div>saturate</div>	<div>83</div> <div>51</div> <div>25</div> <div>26</div> <div>3</div> <div>from 1 to 2</div>	parts of Alkali.
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Table of the Quantity of Acid destroyed by different Absorbents.

Ten grains of	{ Some kinds of Limestones Oyster-shells Chalk Shells of Garden Snails Calcined Cray Fish Pearl Tooth of Sea Horse Volatile Salts Fixt Salts Coral, red and white Crabb's eyes Egg-shells Mother of Pearl Crabb's claws Jaw-bone of the Pike Fish }	{ destroyed the acidity of }	{ 160 120 100 100 100 80 80 80 60 60 50 50 50 40 30 }	{ Drops of Spirit of Salt, }

Table of the Quantity of absorbent Earths soluble in Acids,

576 grains of Spirit of Salt dissolved of	{ Crabs eyes Mother of Pearl Pearls Oyster shells Hartshorn Coral Oriental Bezoar Occidental Bezoar Quick Lime Slaked Lime }	grains 216 144 128 156 165 180 118 123 199 193
576 grains of Spir. of Nitre dissolved of	{ Crabs eyes Mother of Pearl Pearls Oyster-shells Hartshorn Coral Oriental Bezoar Occidental Bezoar Quick Lime Slaked Lime }	297 202 219 236 234 233 108 144 180 216

1. Exotic Species.

640 parts of	Agallochum	}	yield of oil	}	2	
	Canella alba				1	
	Cardemom seeds				25	30
	Cascarilla				4	
	Casia lignea				$\frac{1}{2}$	
	Cinnamon				8	10
	Cloves				90	100
	Dictamnus Creticus				$\frac{3}{4}$	$\frac{1}{2}$
	Galangal				4	5
	Ginger				5	6
	Mace				25	30
	Nutmegs				25	40
	Pepper				6	10
	Pimento				4	
Rhodium	3	20				
Sassafras	12	15				
Saunders, yellow	10					
Zedoary		5				

			from	to
	Angelica root		2	5
	Calamus aromaticus		3	5
	Caraway seeds		30	
	Chervil feeds		$\frac{1}{2}$	
	Elecampame root		3	
	Fennel feed			14
	Juniper berries		16	
	Lavender, flowers of the broad leaved		25	39
	flowers of the narrow leaved			10
	Lovage root			6
	Marjorem leaves		5	10.
	Mastwort roots			3
	Mint leaves			16
	Parsley seed			4
	Rosemary leaves		3	5
	tops in flower			40
	Damask roses			$\frac{1}{4}$
	Saffron			$2\frac{1}{2}$
	Sage leaves			
	Smallage feeds		4	
	Thyme		5	
			5	
640 parts of		} yield of oil		

PART

PART I.

BOOK II.

Of the Distribution, general Nature, and medicinal Virtues of Simples.

THE INTRODUCTION.

Of the Distribution of Simples.

HAVING finished what was thought necessary to establish a true and rational Pharmacy, it is proper, in the next place, to take a particular survey of the materials which come under the management of this profession; as they are the productions of nature, before their properties are altered by preparation and composition. But as the number of these is prodigiously multiplied, through the injudicious luxuriancy of some writers; they having had somewhat to say of the medicinal virtues of many thousand simples, which have never been brought into use; and as the space intended for this part will not admit of such a length; we shall here, in the best method we can, and much better fitted to practice than any other

hitherto contrived, endeavour to set in view such simples only, as have, by reason of long trial, obtained a place in the compositions of the best Dispensatories, and are now found in the prescriptions of greatest note and esteem.

To this purpose they are distributed under distinct heads, according to the general denominations they have obtained in medicine, either of cephalics, diaphoretics, cathartics, &c. which must be of much more ease to the reader, than turning to almost so many different places by the directions of an index, when he would collect or take a survey of all the materials of the same efficacy. But the principal advantage of this method, is its suitableness to exhibit the intended explications of their virtues,

in

in answering a prescriber's intention, because of the general denomination affixed at the head of each division, which leaves no want of a repetition under the particular simples; which has hitherto never been done by any Dispensatory writer.

The whole *Materia Medica* is certainly reducible under the three distinctions of alteratives, evacuants, and restoratives. The first comprehends all that has any power to alter the constitution, without sensibly increasing or diminishing any of the natural evacuations; the second, whatever visibly promotes those discharges; and the last, all that contributes to lessen them, and make the increase greater than the waste. But as these denominations are somewhat too general, we have broke them into sub-divisions; although, for the greater convenience upon other accounts, best suiting our own scheme such sub-divisions fall not exactly under those respective heads. The first, third, fourth, and eleventh sections, include what belongs to alteratives: the fifth, sixth, seventh, eighth, and ninth, what comes under evacuants: and to the last belong the second and tenth. And as even these divisions are some of them too general, we have found it convenient to distinguish them farther into different classes, under more restrained denominations.

In this part, some authors seem to have taken a great deal of pains, though not to any great purpose. The method here made use of, is the nearest to that of Ludovici of any that have gone before; as to the general denominations the simples are ranged under: although in this division of alteratives into

primary and secondary, wherein he imitates Schroder, and is afterwards copied by Etmuller, we have not followed his example; because the grounds of such a distinction are too trifling to deserve the trouble. Too contracted a distribution occasions the same simple, in some respects, to be placed under every head; and too large a one multiplies hard terms, and occasions so many breaks, as are both tedious and troublesome; for there is almost no end in the sub-divisions some make; and were all the appellations, introduced into medicine, to have some share in the distribution of the *Materia Medica*, there would hardly be a simple for each. In this manner therefore a mean is here endeavoured, between the obscurity of too great a conciseness, and the perplexity of too many subdivisions; so that though a simple in many places might, upon some account or other, be reckoned in another section or class; yet it is expected it will be commonly found, that where it stands it has the most right, by reason of its most predominant quality.

The customary distinction drawn from precedency in the three kingdoms, as they are called, is neglected here; not only as such regard is trifling, but because, according to the method we have taken, that has been thought most proper to be put first, which supplies us with most materials for the present work. For which reason the vegetables arise foremost: next the animal; and last of all the mineral productions, which have any share in the medicine.

There is one great error which has run through the whole tribe of Dispensatory writers; when in the distri-

distribution of simples, and the explanations of their virtues, they introduce such things from the animal and mineral kingdoms, which are never made use of in medicine, without great alteration. For what avails it to be acquainted, that there are peculiar virtues in the hair, nails, hoofs, or bones of such particular creatures, when no such things are ever met with in prescriptions, nor are to be procured in the shops? Such accounts may be amusing enough to those who read books of this kind for no other end, and answer the mean purposes of such wretched collectors of rubbish, and compilers, as the late Salmon: but they can never sup-

ply any one with the means of doing good, or increasing any useful knowledge; and therefore ought long ago to have been expunged. For the same reason, in this part, when we come to the preparations of simples, no more will be taken notice of concerning minerals, and metals, than what is of real use; although some authors have injudiciously swelled their writings with these materials.

Custom has ranked many of the simples together, under general denominations; which being often inserted in prescription, without naming of them singly, it may not be amiss just to mention them here.

5
Emollient
Herbs: { Mallows,
Marshmallows,
Violets,
Mercury,
Pelitory of the
wall.

4
Greater hot
Seeds: { Anise,
Fennel,
Caraway,
Cummin.

4
Lesser hot
Seeds: { Bishop's weed,
Stone Parsley,
Smallage,
Wild Carrot.

4
Greater cold
Seeds: { Cucumber,
Cucurbit,
Citrus,
Melon.

4
Lesser cold
Seeds: { Endive,
Scariola,
Lettuce,
Purslane.

5
Greater open-
ing Roots: { Smallage,
Fennel,
Asparagus,
Parsley,
Butch. Broom,

5
Lesser opening
Roots: { Grass,
Madder,
Eryngo,
Capers,
Cammock.

4
Cordial Flow-
ers: { Borage,
Bugloss,
Roses,
Violets.

These classes are found in the Edinburgh Dispensatory in the same manner as here, except that the five lesser opening roots are omitted, and that butcher's broom is among the other five, in the place of pelitory of the wall.

To this distribution of simples, it may not be amiss to give a few useful hints concerning their gathering and preservation.

1. AROMATIC plants should be collected from warm, dry, sandy soils; FETID, from moist and rich ones.
2. VEGETABLES, particularly herbs and flowers, are to be collected in a clear, dry day, as soon as the morning dew is gone off from them.
3. ROOTS are in greatest perfection in the spring. Biennial roots are to be taken up in the spring after the seeds were sown; annual ones, before they have sent out any stalk.
4. HERBS are to be gathered when the leaves have come to their full growth; before the flowers unfold, or at least before they begin to fall off.
5. FLOWERS are to be plucked when moderately expanded.
6. SEEDS should be collected when growing dry, before they begin to fall off spontaneously.
7. FRUITS are to be gathered when fully ripe.
8. WOODS are to be felled in the winter.
9. BARKS also are most conveniently shaved, or taken off, in the winter, as at this time they separate most freely from the wood.

General Rules for the Preservation of Simples.

1. ROOTS are to be washed clean from dirt, freed from the decayed, or rotten fibres, and hung up in a dry, shady, airy place, till moderately dried.
The thicker roots require to be slit longitudinally, or cut transversely into thin slices, and freed from the pith.
Such roots as lose their virtue by exsiccation, may be preserved in dry sand.
2. LEAVES are to be dried in the same manner as roots: if exsiccated in the sun, they lose greatly of their colour, and quality. The leaves of plants, in general, are reduced by exsiccation to about one fourth their original weight: the more juicy ones to less.
3. FLOWERS preserve their colour and virtue in greatest perfection when dried hastily by a gentle heat.

Method of Simples.

I. Vegetables.

II. Animals.

III. Minerals.

S E C T.

Class

I. Nervous simples. —

- { 1. Cardiacs and Cephalics.
- 2. Carminatives.
- 3. Hystrics.

II. Strengtheners. —

- { 1. Agglutinants.
- 2. Astringents.
- 3. Abforbents.

III. Stomachics.

IV. Balsamics. —

- { 1. Emollients.
- 2. Restoratives.
- 3. Vulneraries.
- 4. Detergents.

V. Diuretics.

VI. Diaphoretics.

VII. Emetics.

VIII. Cathartics —

- { 1. Laxatives, or milder.
- 2. Draftics, or stronger.

IX. Sternutatories.

X. Narcotics.

XI. Coolers.

XII. Topics —

- { 1. Repellents.
- 2. Suppuratives.
- 3. Detergents.
- 4. Caustics.

XIII. Simples omitted, or not reducible under the foregoing heads.

XIV. Of waters.

See the officinal Simples, according to this order, in the fourteen succeeding Sections.

S E C T. I.

Of Nervous Simples.

THIS term is very comprehensive, and may take in all those parts of the *Materia Medica* by which the nerves are effected; but here it is used in a more restrained sense, and is to be understood only of those things which have an immediate effect upon the spirits, or which contribute to accelerate and quicken the motion of the solids; so that the sensations at

the head, stomach, or heart, become forthwith much more light-some and agreeable than before. Whatsoever answers this end, passes commonly under the appellations of *Cephalic* and *Cardiac*; and therefore we shall join those together, in explaining the manner by which such simples operate, as come under these general terms.

Class I. Of *Cardiacs* and *Cephalics*.

The reason why these are placed together, is both from the difficulty of making any material distinction, and from the affinity of those simples which are generally ranged under these two denominations. What in a proper sense is a cordial, must be also a cephalic; as the head hath the principle share in agreeable sensations. And indeed, in some respects, whatsoever is grateful and serviceable to the solids in any parts, may be termed *Cephalic*; since in the head is the origin; whereby, as it partakes of their uneasinesses at a distance, so it also very agreeably sympathizes in their releasement therefrom.

There are medicines indeed, both simple and compound, prescribed properly for distempers of the head, from the operation of which nothing arises strictly to denominate them cordial; but they rather have the contrary effect; since, for the present, especially, they sink and depress the spirits: such are cathartics, and other eva-

cuants. But as the head is the better for them only secondarily, or by accident, they cannot come under the denomination of cephalics, as we here use the word. And as the same difference may occur in other things, the whole class of detergent balsamics being accidentally diuretics; so it is most proper to keep to those general terms, according to their just and chief intention.

Whatsoever raises the spirits, and gives sudden strength and cheartfulness, is termed cardiac, or cordial; as comforting the heart. To understand the operation of which upon a human body, it is necessary first to consider, that a languor, or faintness, must either be the consequence of too much exercise, too long watching, or too great a hurry of the animal functions, as in many distempers; all which so far waste or dissipate the nervous fluid, or animal spirits, that the solids cannot repeat, with wonted vigour, their necessary motions.

tions. Or such depression must arise from an obstruction of some natural evacuation; and this is generally that of perspiration, from external cold; which lays a load upon the constitution, and produces the same sensation, as a diminution of strength would do, when the usual weight remained.

In both these cases, the manner by which a cordial acts, is the same; since it must produce its effects by adding to the springiness and force of the fibres. And as this change is most remarkably occasioned by spirits, or spirituous liquors, it may be of use first to examine how they came to obtain such a denomination: whereby we may the better understand how the parts of such simples, or ingredients, taken in substance, operate to produce the same effect. To this purpose it is of great moment to conceive, as near as our senses and reasonable deductions from them will carry us, the make and contexture of those fine threads or fibres, of which the solids of a human body are composed; and how that fluid which is called animal spirits, or nervous juice, is prepared and conveyed to them: but this would take up too much room here, and must therefore be referred to other authors; such as Baglivi *de Fibra Matrice*, Bellini *de Villo Contractili*, in his *Opuscula*; and to a digression concerning the elasticity of an animal fibre, in a late edition of Sanctorius's *Medicina Statica*, with explanations.

It may be sufficient to our present purpose, to attend only to what is in every one's experience; that the more spiritous any thing is which enters into the stomach, the sooner a person feels its cor-

dial effects. For that increase of vigour which a man obtains from common food, although it is the most naturable and durable, is not sudden enough to procure the instruments thereof, the appellation of cordials; since they must pass through several comminutions, or digestions, and be a long time ere they arrive to such a fineness, as renders them dispensable to the nerves: whereas a spirituous substance is so fine and subtile in all its parts before it is taken, that it seems to enter or soak into the nerves as soon as it touches them; whereupon their vibrations are invigorated, and all sense of faintness is removed. And upon the same account it is, that volatiles affect the nose; being so extremely subtile, as to penetrate the olfactory nerves as soon as they come at them. And thus it is, that the effluvia, or steams of flowers, fruits, and all things deemed cordial, operate upon the organs of smelling.

By the same means we may easily conceive how all those things affect the body, which are ranged in the following class. For by the pungency of such substances, both upon the taste and smell, it is manifested they are stocked with many subtile parts, which by their fineness, when dissolved by digestion, and mixed with the animal fluid, are most fit to enter into the slenderest fibres, and recruit that waste their continual motions make of their necessary moisture. Thus all aromatics and sweet-flavoured engredients have a title to this rank; and more or less conduce to this end, in proportion to the subtilty and volatility of their component parts. And thus when we say, such a thing comforts the heart, strength-

ens the brain, or is a cephalic; we understand, that it is suitable to make a part of the nervous fluid, and maintain the due vigour and motion of the solids. As a constitution becomes weak by age, artificial helps (by which we understand all that is used as medicine) are more and more needful: for when the digestive faculties grow languid, and are not able to furnish a due supply from usual diet, for the wastes that are daily made in the animal œconomy, then these auxiliaries are the more wanted. And whatsoever means, at any time, occasion a distemperature in this fluid, such assistances as come under this denomination are necessary: they being fitted by degrees to wear out such undue mixtures, and invigorate the whole nervous system, by a new supply of spirits.

Upon another account likewise it is, that several substances come into this class, besides those that supply the deficiency of the animal spirits; and these are such as have a deterfivè quality, joined with such a *stimulus*, that although they are too fine to be perceptible any where else, yet when they enter into small fibres, by their little vellications, they excite their vibrations, and prevent any usefess matter from lodging in their interstices, and clogging their motions. This quality, when it is in grosser bodies, passes under other denominations; and may prove a vulnerary, diuretic, or the like, according to the different texture of the substances wherein it resides. There are likewise under this head dryers, or absorbents; by reason they prevent those superfluous moistures, which the nerves are frequently overcharged with,

and occasion rheums, with many other inconveniences attending the glands; particularly about the head, where they are large and numerous, and very apt to be affected.

Folia, Herbs:

ASCLEPIADIS, Swallow-wort. Dioscorides hath it by this name, and it is the *Vincetoxicum* of Mathiolus; but known most by the name of *Hirundinaria*, whence the English term. It grows in warmer climates, on a gravelly and sandy soil; and flowers in July and August. The root hath a strong smell when fresh, like that of valerian, or nard; the taste is aromatic at first, but soon becomes disagreeable. The Germans use it sometimes as a succedaneum to the Rad. Contraverva. Its virtues are similar, but inferior to those of valerian.

BETONICÆ, Betony. *Sylvestris*, wood betony, the *Betonica Purpurea* of C.... B.... *Betonica officinalis spica interrupta, corollarum lacinia labii intermedia emarginata*. Lin. It grows in gardens, meadows, and shady places, and flowers in June and July. It is accounted a dryer, and is much used with tobacco under that notion, but its sternutatory quality proceeds not from any stimulus in the plant, but from the rough hairs on the leaves. Though great things have been said of the cephalic virtues of this plant, experience shews, that if it has any virtue at all, it is only that of a mild *corroborant*.

CAMPHORATÆ, Stinking Ground-pines, distinguished by C... B... *hirsuta*, the hairy stinking ground-pine is to be met with in the physic-gardens; and

is recommended by some writers for a cephalic, in strengthening the nerves, and recruiting the spirits: but the modern Pharmacy uses it not.

CHEIRI, Wall-flower; *Leucojum luteum vulgare* of C . . . B . . . *Flore simplici* of J . . . B . . . and *Viola Lutea* of Gerhard. It grows on walls and houses, and flowers in June. It is said to be good in apoplectic and paralytic disorders, to ease pains, and forward the *menfes*

EUPHRAGIÆ, Eye-bright, is also sometimes wrote *Euphrasia*, and *Eutrasia*, and by some called *Ophthalmica*, and *Ocularia*, eye-wort. The *Euphrasia Officinarum* of Linnæus, is the eye-bright here intended; it flowers in June, July, and August sometimes. It is reckoned a great dryer, as the former, and in that respect a cephalic: for which reason likewise it is smoaked as tobacco. It is of great esteem in distempers of the eyes: but its juice is much preferable to the distilled water; which used outwardly, is affirmed to take off all specks, films, mists, and suffusions.

MAJORANÆ, Majoram. It is the *Origanum foliis ovatis obtusis spicis subrotundis compactis pubescentibus* of Linn. the sweet Marjoram. It is raised annually in our gardens; and flowers in June or July. It is a moderately warm aromatic. From three drams to to half an ounce of the tops are infused in a pint of boiling water, and the liquor is drank occasionally, against disorders of the head and nerves, humoural asthmas, and catarrhus complaints in aged people. The powdered leaves are an agreeable errhine.

MALABATHRI. *Folium cinnamo-*

mi sive canella Malabarica et Java-nensis C . . . B . . . Indian-leaf. It is of a green colour, firm texture, smooth on one side, less so on the other, on which run three ribs through its whole length. When rubbed, they emit an agreeable spicy odour; in chewing they are found to be mucilaginous. Those which are the greenest are the best. The London College substitutes mace instead of these leaves; indeed the mace is far preferable.

MARI, Herb Mastich, vulgar by Parkinson; and *Sampfachus sive Marum Mastichen redolens*, C . . B . . . It is a shrubby plant, full of round, slender, broad stalks, a foot high, with two small leaves at a joint, somewhat larger than those of thyme, but otherwise like them: it is of a grateful odour. It is planted in gardens, and continues several years, if not destroyed by cold. It flowers in June and July. The leaves and heads are used. It is much of the nature of marjoram; but differs from it in this, that it is supposed of great service in too great a flux of the *menfes*; a dram of it being given in powder, with a glass of rough red wine.

MARI SYRIACI, [Syrian Mastich Thyme—*Syriacum seu Creticum* of Gerhard; and the *Majorana Syriaci vel Cretica* C . . . B . . . This is a lower and tenderer plant than the marum, or herb mastich; having white hoary branches, and smaller leaves; green above, and hoary below. It has a very quick, piercing, and grateful scent. It is said, that the cats admire this plant so much as to eat it up, if not defended from them. It grows natural in Candia and Syria.] It is reckoned a kind

kind of marjoram, agreeing there-with in virtue and figure; insomuch that by some they have been confounded for the same plant. But what we have now cultivated in our gardens, is much more volatile, and is a good errhine, in ever so small a quantity put up the nose. Its scent is very grateful and pungent, and makes an excellent *sal volatile*; and in such a composition is the best of cephalics.

ORIGANI VULGARIS, Common *Origanum*; distinguished, *Anglicum*, English wild marjoram. It grows a foot high, having many hairy, brown, brittle stalks; with two broad, round, pointed leaves, larger than marjoram, set at a joint on very short foot-stalks, and of a brownish green colour. It grows in hedges and thickets, and flowers in July. This *origanum* is not so strong as the Candy sort, yet good in obstructions of the breast and womb, in the jaundice, and suppression of the menses.

[**ORIGANI CRETICI**, *Origanum*, or wild marjoram of Candy; distinguished *Origanum Onites* C... B... The *origanum* found in the shops, grows taller than common sweet marjoram, with longer and whiter leaves; and larger and longer scaly heads, among which grow small white flowers, like those of sweet marjoram; of a pleasing, strong, aromatic odour. It grows in the island of Candy or Crete, and other parts of Greece; and flowers in June. These are what should be used when the *Flores Origani* are ordered.] It is a very hot spicy plant, but not quite so gratefully scented as the marjoram. It has been much recommended in baths, both for distempers of the head, and hysteric

cases; as likewise for cutaneous eruptions.

ROS SOLIS, Sun-dew. This plant is divided into two kinds; the *folio rotundo*, with a round leaf; and the *folio oblongo*, with a longish one; but the former as described by C... B... is that most in use. [It is a small low plant, with a fibrous root; from whence spring small, round, hollowish leaves, on foot-stalks about an inch long, covered and fringed with short red hairs, which give a red cast to the whole leaf.] It grows in champion and marshy grounds, in a pale red moss, and flowers in May. It is accounted very hot; and, according to the old cant, in the fourth degree, which anciently occasioned its use to be forbid. It is reckoned by some a great restorative, and a provoker to venery. By its hot, and consequently drying qualities, it is plain what affections of the nerves it is of use in. Mr. Ray takes notice, that its hot escharotic quality makes it very hurtful to sheep, in rendering their viscera schirrous; whereby, in some countries it is called by the common people red-rot.

SALVIÆ, *Sage*: called *Herba sacra*, the holy herb. It flowers in July and August. There are several sorts of this plant, but only two in use. One is the *Salvia major hortensis*, or *latifolia*, most used in the shops. This grows of two colours, red and green: the former is preferred; though the difference is but little. The species according to Linnæus is the *Salvia foliis lanceolato ovatis integris crenulatis, floribus spicatis, calycibus acutis*. The other is the minor, or *angustifolia*, little used in the shops, but much in private families,

lies, under the name of sage of virtue, and tea-sage. There is also a *Salvia sylvestris*, described by C... B... which is the *Scordonia*, or *Salvia agrestis* of Gerhard, or *Scorodotidis sive scordii foliis salvia*, J... B... or wood-sage; but it is not used in the shops, although much recommended by ancient writers for possessing the same virtues as cloves. This herb has been in such esteem, as to occasion the verse,

*Cur moriatur homo, cui salvia
crescit in horto?*

It is undoubtedly a very good cephalic, of the detergent kind; and thereby it likewise comes under the class of vulneraries, diuretics, &c. It has an austerity upon the palate, and makes a very good gargarism; especially if sharpened with a little acid. It makes an excellent liquor, after the manner of tea, in fevers, and is mighty grateful and cooling, with the addition of a little lemon-juice, which with the red sage, makes it of a delightful colour. Its real effects are to warm and strengthen the vessels, and promote an appetite; and for these purposes the best preparation is an infusion of the dry leaves, drank as tea.

SCHOENANTHI, *Squinanch*; called also *Juncus odoratus*, sweet rush, *Fœnum*, or *Stramen camelorum*, camels hay, or straw. It grows in some parts of India, as common as the grass here, and is in plenty likewise in many parts of Arabia, whence it is brought into Europe. It is a grateful aromatic, of volatile and subtile parts; and upon that account ranked in this class of cephalics. By long keeping it loses its flavour. Distilled in water it yields much essential oil.

SERPILLI, Wild Thyme. *Thymus floribus capitatis, caulibus repentibus, foliis planis obtusis basi ciliatis*. Linn. There are various kinds of this as distinguished by botanic writers; but the *Ἐριλλος* of Dioscorides, the *Serpyllum Sylvestre* of Mathioli, and the *Serpyllum vulgare minus*, the common lesser wild thyme of C... B.... seem to be the same; and are what is referred to under this name by our modern Dispensatories. It has a small, stringy, creeping root, whence spring numerous slender woody stalks, with two small, roundish, green leaves, set at a joint on short foot-stalks. The flowers grow on the top of the stalks, among the leaves. Both leaves and flowers have a strong pleasant smell. It grows upon heaths and commons; and flowers in June and July. It is not much used; although it enters the *Aq. Stephani*. It is hot, pungent and a drier. Some commend it as a good uterine, and say it promotes the *menfes*; and that it is very helpful in many distempers of the head, being used in baths.

THYMI, Thyme. There are several sorts of this, but the *Vulgaris folio tenuiori*, the common thyme, with a small leaf, of C... B... is most in use; and that intended in officinal compositions. It flowers in July. It is the *Thymus erectus foliis revolutis ovatis, floribus verticillato spicatis*. Linn. It is so much of the nature of *Serpyllum*, that, in case of want, they may be used for one another.

Flores, Flowers:

ANTHOS, of Rosemary. These are the *Flores Rosmarini angustiore folio*, the narrow-leaved rosemary of C... B.... *Rosmarinus horten-sis, angustiore folio*. Linn. They blow

blow in April. These are reckon-
ed the principal aromatics of our
own growth. They are used in
almost all nervous complaints; es-
pecially such as arise from too great
moisture and cold, as they are hot
and drying. In epilepsies, palsies,
and all diseases of that kind, they
are hardly ever omitted in prescrip-
tion, under some form or other.
They abound with a subtile deter-
gent oil, which makes them uni-
versally deobstruent and opening.
They are therefore prescribed in
uterine obstructions, in the jaun-
dice, and even in the gout. With
these is made the celebrated Hun-
gary water; a small quantity of
which, diluted with common wa-
ter, is reckoned excellent in dis-
lodging and bringing away wax,
which hardens in the ears, and
hinders the hearing. It is to be in-
jected warm, with a syringe made
on purpose for that use. The
leaves and tender tops are strongest;
next to these the cup of the flower;
the flowers are the weakest, but
most agreeable. Aqueous liquors
extract by infusion the greatest part
of the virtues of this plant. Distil-
led with water, a large quantity of
essential oil arises. Pure spirit ex-
tracts the whole aromatic flavour
of the leaves, but raises very little
from them by distillation. The
flowers give over their flavour by
distillation with spirit.

AURANTIORUM, of Oranges.
The *Aurantia major* of C...B....
the kind here intended, They are
of an admirable scent, though, like
all such perfumes, too powerful for
some persons; and therefore pre-
judicial. They are now but little
used in medicine: however, where
the spirits are almost quite extinct
in malignant and putrid fevers,

they are sometimes very cordial
and refreshing. The distilled water
is called by foreign writers *Aqua
Naphæ*. An oil is distilled from
the flowers, called *Oleum*, or *Es-
sentia Neroli*.

CARYOPHYLLI AROMATICI,
cloves, are the flower cups (not as
is generally supposed the fruit) of
a bay-like tree, growing in the East
Indies. In shape they somewhat
resemble a short thick nail: in the
inside of each clove are found a
stylus and stamina with their api-
ces, as in other flower cups: at the
larger end shoot out from the four
angles four little points like a star,
in the middle of which is a round
ball, composed of four little leaves,
which are the unexpanded petala
of the flower. Cloves have a very
strong, agreeable, aromatic smell,
and a bitterish pungent taste, almost
burning the mouth and fauces.
The Dutch, from whom we have
this spice, frequently mix with it
cloves which have been robbed of
their oil: these, tho' in time they
regain from the others a conside-
rable share both of taste and smell,
are easily distinguishable by their
weaker flavour and lighter colour.
Cloves considered as medicines, are
very hot stimulating aromatics, and
possess in an eminent degree the
general virtues of substances of this
class. An extract made from them
with rectified spirit is excessively
hot and pungent; the distilled oil
has no great pungency; an extract
made with water is nauseous and
somewhat styptic: the oil of cloves
is much used likewise for the tooth-
ach, dropt upon a little cotton or
lint, and stuffed into the hollow, or
held as near as can be to the part
affected.

CARYOPHYLLI HORTENSIS,
E 3 clove.

clove-gilliflowers; the *altis major* of C . . B *Dianthus floribus solitariis, squamis calycinis subovatis brevissimis, corollis crenatis.* Linn. They blow in July; they are a fine aromatic, and very grateful to the smell and taste. They have a place in a syrup which is used in most cephalic and cordial juleps. By a very light coction, they lose their flavour. There is also a conserve made of them, but hardly ever used.

JASMINI, or jessamy. The plant which produces these is the *Jasminum*, and *Apiana* of Dodonæus, the *Gelsaminum* of Mathioli, and *Jasminum vulgatius flore albo*, the white flowered jessamy of C . . B The flowers blow almost the whole summer. These are but little used, and of the same nature as those of oranges, rather a perfume than a cordial. But in that respect they are very excellent.

LAVENDULÆ, or lavender. The plant which produceth these was anciently most known by the name of *spica*, divided into the male and female; the latter is the lavender of the shops, and distinguished by C . . B by the name of *Lavendula angustifolia*, the narrow-leaved lavender. *Lavendula foliis lanceolatis integerrimis spicis nudis*, of Linnæus. The flowers blow in June and July, and are much of the nature of the rosemary flowers, only more sweet, or approaching to a perfume. There are no diseases in the head in which they are not employed under some form or other; they are also very grateful and cordial to the stomach. In all paralytic affections they are reckoned to give place to nothing; and in loss of speech they do wonders. The essential oil mixed with oil of almonds, and applied by

means of spongy paper, in one night will destroy any kind of insects that infest the skin. The celebrated palsy-drops, are the compound spirit of lavender of the shops; and are a most noble cephalic and cordial medicine. But in the case Rulandus speaks of, it is much better dropped upon sugar, to be gradually dissolved in the mouth, then swallowed at once. From the *Lavendula latifolia* C . . B greater or broad-leaved lavender, is obtained the oil of spike.

LILII CONVALLII, Lilies of the valley, or May lilies. This plant is the *Lilium Convallium, seu Ver-num*, of Theophrastus, and the *Lil. Conv. album* of C . . B The flowers blow early, by the beginning of May. They are of a mighty fragrant scent, but it is so languid and volatile, that in drying it is quite or very near lost. Therefore where they enter into the composition of waters, they ought by all means to be put into the spirit of wine, as soon as ever gathered, and, if possible, before the very dew is off them.

PÆONIÆ, or Piony. *Pæonia fol. lobatis ex ovato lanceolatis, floribus simplicibus kermesinis, seminibus nigris lucidis.* Linn. This plant is divided into male and female; the former of which is preferred in medicine; they are distinguishable both in the root and leaves; the male is described by C . . B *folio nigricante splendido*, with a shining blackish leaf, from which the female differs in being lighter coloured. The root of the male kind is likewise more bulbous, shorter and branched; whereas the other runs out into few, longer, and thinner shoots. The flowers blow in May and June. They are much in esteem for convulsions in children;

children, and accounted good in all nervous distempers.

ROSARUM DAMASCENARUM, of Damask roses. The flowers blow in May and June. In this class they obtain a place as the orange and jessamy, being of much greater efficacy in medicine, by reason of their cathartic quality; under which division, they will be considered more at large.

STÆCHADOS, of Arabian Stæchas, or French Lavender; distinguished by C . . . B . . . *Purpurea*, the purple cotton weed. *Lavendula stæchas purpurea, foliis lanceolatis linearibus, spica comosa pedunculis brevioribus.* Linn. The Arabian, or purple Stæchas, is the flower of a beautiful shrub, growing three or four feet high, and clothed with long hairy leaves, less than those of common lavender; two at a joint. The stalks are square, bare of leaves to the tops, on which grow thick round hairy spikes, or purple heads. Both the leaves and flowers, or heads, have an aromatic flavour. It grows naturally in the south of France and in Spain. The name, according to Dioscorides, came from the Stæchades, or islands in the Mediterranean, near Marseilles. With us it is planted in gardens, and easily increased; and with moderate shelter will endure the severest winters. It flowers in June, and its heads should be gathered when they are firm and hard, which is about the end of July. The fresh flowers of our own growth, are to be preferred to those that come from abroad, which are seldom fresh. It is cordial, cephalic, and strengthening to the nerves. They are by all ranked amongst the cephalics; and some ascribe to them the same virtue as to hyssop, which comes

under another class, as a pectoral.

TILIÆ, of the Lime-tree. The kind here meant is the *Femina folio majore*, C . . . B . . . The female with a larger leaf. *Tilia Europæa folio majore, flori'us nectario destitutis.* Linn. They are universally recommended in epilepsies, and all nervous distempers; and upon that account make a part of the compound piony water. Ray also ascribes to them a nephritic quality; and says they help in some disorders in the womb.

Semina, Seeds:

SINAPIOS, Mustard. This plant is divided into garden, and wild mustard. The former is chiefly used, and distinguished by John Bauhine into the *Sinapi siliquâ latiusculâ glabrâ, semine rufo sive vulgari*, the rough broad-podded mustard, with a brown seed. The Edinburgh college directs the seeds of the *Sinapis siliquis hispidis, nostro obliquo longissimo*, of Linnæus, and the *Sinapi album, siliquâ hirsutâ semine albo*, rough-podded mustard with a white seed. The former is most used, and its seeds make a very pungent deterfive cephalic. They are much more used in sauce, than in medicine: although they are mighty efficacious in stimulating the fibres, and loosening and dissolving viscidities: and therefore excellent in all paralytic cases, and the decays and defluxions attending old age. They are also very diuretic, and serviceable in asthma, as well as dropsies.

THLASPIUS, of Treacle, or Mithridate-mustard, as Mr. Ray calls it. Casper Bauhine distinguishes that which ought to be used, by *arvense siliquis latis*, the field mustard with broad pods. *Thlaspi*

arvense, foliis oblongis dentatis glabris, floribus albis, siliculis orbiculatis. Linn. The seeds of this are seldom used in medicine, unless in the Venice treacle. Schroder ascribes to them pretty much the same qualities as the former.

Fructus, Fruits:

ANACARDII, ORIENTALIS, or the Malacca Bean. It is a seed growing a-top of a conical fruit in the East Indies. It is in shape and colour like a bird's heart; and covered with a tough skin, including a spongy substance full of a caustic oil; and underneath, inclosed in another skin, lies the kernel, which tastes like an almond. It is said to be hot and dry, and a provocative to venery. It is seldom to be met with in England; the *Mel Anacardium* being long since dropt in the College Dispensatory.

ANACARDIUM OCCIDENTALE, the West Indian Anacardium; called Cajous by C... B..., and in Jamaica, the Cashew Nut. It grows at the end of a fruit like a small ripe apple; in size and figure resembling a hare's kidney. The outer rind, which is tough and brownish, contains a large proportion of a fiery caustic oil: and under that in a soft shell, a white pleasant kernel, which is eaten in Jamaica, after the nut has been roasted in the embers to discharge its caustic oil. This kernel is said to have the same virtues as the East India sort. They are both supposed to heat and dry, and to have cephalic virtues: but they are both now rejected by the modern Dispensatories.

ALKERMES, of Alkermes. It is like a berry which adheres to the branches of the *Ilex aculeata cocci glandifera*, of C... B... and the *Ilex coccigera* of Clusius, called

Coccum insectarium by Mathiolus, and *Coccus baphica* by Dioscorides. The juice is wonderfully grateful to the palate, and a fine cordial. The confection in which it is the principal ingredient, and to which it gives name, is not at all better, if so good as the clarified juice alone. This juice, or rather the confection made with it, is in great request amongst our midwives, for assisting in delivery. It is reckoned likewise a bringer out of the measles and small-pox.

BANILLI, Vanelloes, or Baniloes. This is the fruit of the *Araucus aromaticus*, distinguished by Mr. Ray, *Volubilis filiquosa Mexicana foliis Plantaginis*: it comes from New Spain; and is chiefly mixed with chocolate, to which it gives a flavour agreeable to some, but hurtful to many as a perfume. [They are dark brown, flat pods, or sheaths, five or six inches long, and scarce one inch broad; wrinkled on the outside, and full of numerous small black grains, almost as fine as sand; and smelling like balsam of Peru.]

CERASORUM, of Cherries. Luxury has prodigiously multiplied and improved the kinds of these in our own country. Many of the sorts, and particularly the Kentish red cherries, are a very wholesome fruit, and grateful to the stomach; but the black only are used in medicine. They are prescribed in all diseases of the head and nerves; and by some are also accounted diuretic, especially the water distilled from them.

COFFÆ, the Coffee-berries. The fruit of an oriental shrub.—*Coffea Arabica floribus quinquesidis dispermis, albis odoratissimis, castaneæ folio, fructu baccis lauri simili.* Linn. They are not employed in medicine;

medicine; yet they are so much in every one's way, (that is, the liquor made of them) that it may be worth a person's while to know that they are very drying; and therefore in disorders of the head from fumes, and too great moistures, very serviceable by their absorbent qualities. This most experience, who try them, after a debauch of wine or strong liquors. But in thin and dry constitutions they are very hurtful; as they dry the nerves too much, and are apt to make them tremble, as in palsies: by the same means, likewise, they promote watching, by bracing the fibres too tense for that relaxation which is necessary for sleep. Although in a case of extraordinary defluxion of rheum from the glands about the head and stomach, in a cold constitution, which occasioned a great hindrance to the person's sleeping, I once advised them; and, according to expectation, they procured sleep, by absorbing the superfluous and continually distilling rheum. So that the same thing may have different effects, according to the constitution to be operated upon.

CUBEÆ, of Cubebs. They are small spicy grains, or berries, like pepper, brought chiefly from Java in the East Indies, and pretty much of the like virtue. It is much questioned of what these are the fruit. Some will have them to be of the pepper kind, and the *Piperrotundum* of Theophrastus; others the fruit of the *Ruscus*; and others the *Carpesium* of Galen; but *Casalpini* affirms them to be the fruit of the tree *Amomum*. However it be, the natives, it is said, will not export any of them till boiled, to prevent their culture and growth in other countries. In aromatic warmth

and pungency they are inferior to pepper.

NUCIS MOSCHATÆ, Nutmegs, *fructu rotundo* C...B... Nutmegs. *Myristica Moschata, vel Myristica, arbor nuxes Moschates et Macem gerens*. Weston. The kernel of a roundish nut which grows in the East-Indies. The outside covering of this fruit is soft and fleshy like that of a walnut, and spontaneously opens when the nut grows ripe; immediately under this lies the mace, (see the article MACIS) which forms a kind of reticular covering, through the fissures whereof appears a hard woody shell that includes the nutmeg. These kernels have long been made use of both for medicinal and culinary purposes, and deservedly looked upon as a warm agreeable aromatic. They are supposed likewise to have an astringent virtue; and are employed in that intention in diarrhœas and dysenteries. Their astringency is said to be increased by torrefaction, but this does not appear to the taste: this treatment certainly deprives the spice of some of its finer oil, and therefore renders it less efficacious to any good purpose; and if we may reason from analogy, probably abates of its astringency. Nutmegs distilled with water, afford a large quantity of essential oil, resembling in flavour the spice itself; after the distillation, an insipid sebaceous matter is found swimming on the water: the decoction, inspissated, gives an extract of an unctuous, very lightly bitterish taste, without any sensible astringency. Rectified spirit extracts the whole virtue of nutmegs by infusion, and elevates very little of it in distillation: hence the spirituous extract possesses the flavour of the spice in an eminent degree.

Nutmegs

Nutmegs yield to the press (heated) a considerable quantity of limpid yellow oil, which in cooling concretes into a sebaceous consistence. In the shops we meet with three sorts of unctuous substances called oil of mace, though really expressed from the nutmeg. The best is brought from the East Indies in stone jars; this is of a thick consistence, of the colour of mace, and an agreeable fragrant smell: the second sort, which is paler coloured and much inferior in quality, comes from Holland in solid masses, generally flat and of a square figure: the third, which is the worst of all, and usually called common oil of mace, is an artificial composition of sebum, palm oil, and the like, flavoured with a little genuine oil of the nutmeg. These oils yield all that part in which their aromatic flavour resides, in distillation to water, and to pure spirit by infusion: the distilled liquor and spirituous tincture nearly resemble in quality those prepared immediately from the nutmeg.

PIPERIS, of Pepper. Mathiolus, the Bauhines, and other botanic writers, describe a white pepper; but what we have of that name is only the black pepper manufactured by our industrious neighbours the Dutch. It is done by putting full ripe black pepper in a trench for two or three days, till the outer bark or black skin rots off; and then washing it in water to separate the bark which floats a-top; and afterwards drying the pepper with white ashes, and winnowing it. It is the weakest of the peppers. It comes from Malabar, Java, Sunda, and other parts of the East Indies. There is also the *Piper Indicum*, called *Capficum*, and *Guinea pep-*

per, which grows in large pods, and is used by the Spaniards, in their sauces and pickles; but medicinal prescriptions take no notice of it. This is much of the same nature as cubebs, but rather hotter and drier. It enters therefore not only into many compositions as a cephalic, but also into cathartics, as a corrector; it assisting the bowels the easier to endure the vellications of a purging medicine. Hoffman commends it in the colic, to be drank whole in a little brandy. And our country people have got a trick of curing agues with a large dose of the same, taken just before the fit comes: but they require good athletic constitutions, who submit to be set on fire, to be cured of a contrary extreme. It sometimes likewise will relieve the tooth-ach. The long pepper (used too in medicine, though not by a great deal so much in sauces as the other) is pretty much of the same virtues; but by far hotter. The black pepper grows upon a plant that climbs and twists about its support, and bears large, oval, sharp-pointed leaves, full of large nerves; and opposite thereto grow long spikes of monopetalous flowers, cut into three parts, and succeeded by bunches of the grains of pepper, round, of a dark brown colour, with their outside bark wrinkled. The black pepper tree is the *Piper rotundum nigrum, foliis ovatis subseptem nerviis glabris, petiolis simplicissimis*. Linn.

Long pepper grows upon a plant that twists and climbs like the black; having large, oblong, round-pointed leaves, set alternately on the stalks; and opposite to them grow monopetalous flowers, divided into five segments, which are succeeded by the fruit. It grows in Java,

Java, Malabar, and other parts of the East-Indies. It is the *Piper Indicum longum, fol. cordatis petiolatis sessilibusque*. Linn.

PIMENTO: this is called by the common people All Spice; and indeed it has in its taste and flavour somewhat resembling most of the spices. It comes to us chiefly from Jamaica, and is generally sold by the name of Jamaica pepper. It is accounted a species of the *Caryophyllus aromaticus Americanus, lauri acuminatis foliis, fructu orbiculari*. It is the *Myrtus Jamaicensis, fol. oblongo ovatis glabris alternis, racemis terminatibus lateralibus, fructu orbiculari*. Linn. We meet not with it in either ancient or modern Dispensatory compositions, unless in the last edition of our college. But it is pretty much got into the shops, as a *succedaneum* to some spices which are dearer; and some have found a way to use nothing else in the *Aqua Mirabilis*, though none of it is ordered; and it answers so well, that if it be carefully distilled, and the spirit be good, it is hardly to be perceived from that which is genuine; and may, perhaps, not be inferior in its medicinal virtues.

Balsamum, Balsam:

BALSAMUM PERUVIANUM. The common Peruvian balsam is said to be extracted by coction in water, from an odoriferous shrub, growing in Peru, and the warmer parts of America. *Toluifera Carthagenensis, foliis ceratiæ similibus, flore luteo*. Linn. This balsam, as brought to us, is nearly of the consistence of thin honey, of a reddish brown colour inclining to black, an agreeable aromatic smell, and a very hot biting taste. Distilled with water, it yields a small quantity of a fragrant essential oil, of a reddish co-

lour; and in a strong fire, without addition, a yellowish red one.—Balsam of Peru is a very warm aromatic medicine, considerably hotter and more acrid than copaiba. Its principal effects are, to warm the habit, to strengthen the nervous system, promote the circulation, and attenuate viscid humours. Hence it is used in some kinds of asthma, gonorrhœas, dysenteries, suppressions of the uterine discharges, obstructions of the viscera, and other disorders proceeding from a debility of the solids, or a sluggishness and inactivity of the juices. It is also employed externally, for cleansing and healing wounds and ulcers; and sometimes against palsies and rheumatic pains. — This balsam does not unite with water, milk, expressed oils, animal fats, or wax: it may be mingled in the cold with this last, as also with the sebaceous substance called expressed oil of mace; but if the mixture be afterward liquefied by heat, the balsam separates and falls to the bottom. Alkaline lixivium dissolve great part of it; and rectified spirit the whole.

There is another sort of balsam of Peru, of a white colour, and considerably more fragrant than the former. This is very rarely brought to us. It is said to be the produce of the same plant which yields the common or black balsam; and to exude from incisions made in the trunk.

LADANUM, or Labdanum. This is a balsam or gum oozing out of the leaves of the *Opuntia Ladanifera*, which is common in Cyprus, and some parts of Arabia. Dioscorides saith, it is pulled off from the beards of goats, who feeding upon those leaves, the viscous juice, by degrees, gathers and hardens into little

little lumps upon the hair. M. Tournefort, in his voyage to the Levant, describes the method of gathering this gum in Candia. He says it is brushed off the leaves of the shrub, in a calm day, by a sort of whip composed of many straps, to which it adheres : and after it is scraped off the straps, it is made into cakes of different sizes. That which is brittle, of an ash-colour, sweet-scented, and clearest from dross, is the best. It warms, dries, and deterges ; but is most used outwardly, and enters many of the plasters which are accounted warm, emollient, and digestive.

Lignum, Wood :

AGALLOCHI, called also *Xyloaloes*, Aloes wood. *Cordia Sebestena*. Linn. It is a tree in the East Indies, brought to us in small bits, of a very fragrant scent. The best is accounted of a blackish purple colour, and so light as to swim upon water. But there is scarce any such to be found ; it is hot and drying, and esteemed a great strengthener of the nerves in general ; but particularly of the head and stomach. Ang. Sala was a great admirer of this wood ; and made an extract from it with spirit of wine, which is wonderfully commended. It also affords a very extraordinary chemical oil, containing the full aromatic virtues of the wood.

ASPALATHI, or *Rodii*, Rosewood. This is a wood, or rather perhaps a root, that comes from the Canaries, of a yellowish colour, a hard woody substance, full of knots. It is accounted astringent and drying ; but though much in use amongst the ancients, it is almost quite rejected as an internal medicine now. An oil drawn from

it, is of an admirable scent, and very comfortable to the head, where perfumes are not offensive ; for this may be reckoned one of the principal. It is chiefly used in scenting pomatums and liniments.

Cortices, Barks.

MACIS, Macc. It comes off from the nutmeg, and is a kind of bark or covering thereto. See NUTMEG. It is much of the same virtues, and used both in cardiac compositions, and in cathartics, as a corrector.

WINTERANUS, Winter's bark. This is a warm aromatic drug, which takes its name from the person who first brought the Europeans acquainted with it. The true Winter's bark is rarely met with in the shops, the CANELLA ALBA being generally used for it. However similar their virtues may be, the Winter's bark is much more warm and pungent than the Canella Alba is. The Canella Alba, or white cinnamon, is a bark rolled up into long quills, thicker than cinnamon, of a whitish colour lightly inclining to yellow. The shops distinguish two sorts of Canella, differing in the length and thickness of the quills ; they are both the bark of the same tree, the thicker being from the trunk, and the thinner from the branches. — This bark is a warm pungent aromatic, but not very agreeable. Its chief present use is to cover the disagreeable flavour of aloes in the *Spec. Hiera Picra*.

Radices, Roots. Acori, vel

CALAMI AROMATICI, sweet scented flag ; the roots. *Acorus Varietas*. Linn. This flag resembles, as to its leaves, the common iris, but in other respects differs greatly

greatly from it: the stalk grows at a little distance from the leaves; the lower half, up to where the flowers come forth, is roundish; the part above this, broad like the other leaves: the flowers are very small, whitish, and stand in a kind of head, about the size of the finger. This plant grows plentifully in rivulets and marshy places, about Norwich and other parts of this island; in the canals of Holland; in Switzerland; and in other countries of Europe. The shops have been usually supplied from the Levant with dried roots, which are not superior, if equal to those of our own growth.

The root of acorus is full of joints, crooked, somewhat flattened on the sides, internally of a white colour, and loose spongy texture: its smell is strong; the taste warm, acrid, bitterish, and aromatic; both the smell and taste are improved by exsiccation. This root is generally looked upon as a carminative and stomachic medicine, and as such is sometimes made use of in practice. It is said by Haller to be superior in aromatic flavour to any other vegetable that is produced in these northern climates: such as we have had an opportunity of examining, fell far short in this respect, of many of our common plants. There is something manifestly unpleasant in its flavour, inclining, as Geoffroy justly observes, to that of leeks or garlick: nor have our experiments discovered any preparation of it that was truly grateful: the most agreeable is a preserve made after the manner directed in our Dispensatory for candying eryngo root; in this form it is used at Constantinople as a preservative against epidemical diseases.

GALANGÆ, of Galangal. It is a small knotty root. This is distinguished into the greater and lesser sort; the latter of which is preferred. Clusius and some others judge it to be a species of the Iris; and others of the *Acorus*. And the lesser kind is by the modern Greeks called *Cyperus Babylonica*. That which is heavy, well-scented, and of a reddish colour, is best. It is much warmer than the *Acorus*, and is much esteemed in flatulencies and indigestions. It is used, with success, in all indispositions either of the head, stomach, or womb, arising from weakness of the nerves. It is a very good ingredient in stomachic bitters, and in all compositions that answer the intentions of a cardiac or cephalic.

GINSENG, called also *Ninzig*, is a root brought from Japan, China, and North America, and by some passed for a cephalic, and a promoter of venery; but modern practice takes little notice of it. [See *Philos. Transact.* N^o 337.]

PÆONIE, of Piony. This root, as well as the flowers before mentioned, is accounted a good cephalic. The good women highly esteem necklaces made of it to hang about children's necks for convulsions, and difficult breeding of the teeth. It is likewise aperient, and upon that account reckoned amongst diuretics and detergents: as also alexipharmic; upon which account it had a place in the College plague-water.

SATYRII, seu *Orchitis Satyrion*. *Orchis bulbis indivisis, nectarii labio quadrilobo crenulato: cornu obtuso, petalis dorsalibus reflexis.* Linn.—Dioscorides distinguishes between these, and saith, the *Satyrion* hath a single root, but the *Orchis* a double bulbous one. Pliny however confounds

confounds them; and our countryman Mr. Dale ranks them under the same tribe. It passes for a great cordial and restorative. And amongst all who have been influenced by whimsies, it has been judged, from its signature, to be a great provoker to venery. The root which we have from the East, called Saleb or Salap, is the roots of different species of Orchis: and with a little care might be produced in England at a very small expence, and of as good a quality, as that from abroad.

ZEDOARIÆ, of Zedoary. *Costus Arabicus*. Linn. This is distinguished by some into various kinds; but the long and round are the most remarkable: though Lobelius says they differ only in form. The best is white, fragrant, heavy, sound, and of a spicy bitterish taste; which brings it under the class of cephalics. But it is also reckoned by many amongst the alexipharmics; for which reason it comes to have a place in the cardiaes; and it is said even to prevent in-

fections, by holding it only in the mouth. By reason of its agreeable bitterness, it is prescribed likewise as a stomachic; and for its spicy warmth it is commended also in colics and hysterical affections, and likewise for promoting the menses. Rectified spirit extracts the whole of its warmth and aromatic flavour; leaving the bitter entire and capable of being extracted by water proof spirit extracts them both together.

ZINZIBER, Ginger. *Amomum Zinziber*. Linn. A root, brought from China and the East and West Indies; of a fragrant smell, and a hot, biting, aromatic taste. Rectified spirit extracts its virtues by infusion, in much greater perfection than aqueous liquors; the latter elevate its whole flavour in distillation, the former little or nothing. Ginger is a very useful spice in cold flatulent colics, and in laxity and debility of the intestines; it does not heat so much as those of the pepper kind, but its effects are more durable.

Class 2. Of Carminatives.

These have a place among the nervous simples, by reason the nervous parts are frequently under great disorders from flatulences, or wind pent up: and therefore, what dissipates and expels such vapours, must be reckoned of great service to those parts.

A great many seem to be strangers to this term; as it does not appear to carry in it any thing expressive of the medicinal efficacy of those simples which pass under its denomination. This term had certainly its rise, as thus applied, when medicine was too much in the

hands of those jugglers, who, for want of true knowledge in their profession, brought religion into their party; and what through their ignorance they were not able to do by rational prescription, and the use of proper medicines, they pretended to effect by invocation and their interest with heaven. Which can't being generally, for the surprise sake, couched in some short verses; the word *carmen*, which signifies a verse, was made also to mean an incantment: which, as it was a very good cover for their ignorance, as well as knavery, was frequently

frequently made use of to satisfy the people of the operation of a medicine they could not account for. And as those medicines, now under this name, are of quick efficacy; and the consequences thereof, in many instances, very great and surprising; and the most violent pains, sometimes arising from pent up wind, immediately ceasing upon its dispersion: for these reasons, I say, such medicines as give relief in this case, are more properly termed *carminatives*, as if they cured by enchantment; the complaint removed by them being so sudden, that the ordinary means of the operation of a natural cause are not easily imagined to take place so soon.

But howsoever this term came into the profession, common use has sufficiently determined its meaning; so that every one understands by it such things as conduce to expel wind. How they do so, may be conceived, when we consider that all the parts of the body are perspirable. *Sanctorius*, in his *Medicina Statica*, determines all we call wind in the bowels, to be such perspirable matter as makes its escape through the coats of the stomach and intestines. Between the several membranes, likewise, of the muscular parts may such matter break out, and lodge for some time. Now, whatsoever will rarify and render such collections of vapours thinner, must conduce to their utter discharge out of the body; and consequently remove those uneasinesses, which arise from their detention. And as all those things in medicine which pass under this denomination, are warm, and consist of very light subtile parts, it is easy to conceive how a mixture of such particles may agi-

tate and rarify those flatulencies, so as to facilitate their expulsion: and especially when we consider what a help to promote this end those grateful sensations may be, which such medicines give to the fibres; which cannot but invigorate their tonic undulations so much, that, by degrees, the obstructed wind is dislodged, and at last quite expelled. But if the obstruction is not great, as it seldom is in the bowels, by reason of the large vent both upwards and downwards, the rarification and discharge are often extremely quick and sudden.

All the things under this class being warm and discussive, are much used in the compositions of Cathartics, of the rougher sort especially. For the irritation occasioned by those, would be scarce tolerable without the mitigation of such grateful ingredients. Many likewise of this sortment are in the compositions of discussive topics: as they warm, rarify, and attenuate the obstructed humours.

Folia, Herbs.

ANGELICÆ, Angelica. It is the *Angelica fol. impari lobato*. Linn. Also the *Angel. fol. equalibus ovata lanceolatis serratis*, Linn. It flowers in July. This is a warm, fragrant, aromatic plant. But at present it is regarded little otherwise than as a carminative; and therefore we give it a place in this class. Bohemia and Spain produce the best.

CHAMÆMELI, Camomile. John Bauhine distinguishes it by *Floræ simplici*, in opposition to the *Floræ multiplici*, the double camomile; which latter hath, of late, much obtained in the shops through mere error: for the single flower is much the strongest and best. It is
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the *Anthemis fol. pinnato compositis linearibus acutis subvillosis*. Linn. It flowers in June and July. It has great carminative virtues, and is also accounted a good anodyne, and excellent against cramps, and such like spasms. The powdered flowers have cured agues when the bark failed. The flowers are very antiseptic. Outwardly it is a good emollient and ripener, in cataplasms. It is used with success, likewise, against the tooth-ach, applied hot, in a bag, to the cheek. A compound water of camomile-flowers, in the late Dispensatory, is a most excellent composition, as a cardiac and a carminative.

The flowers enter the *fotus communis*, & *decoctum commune pro clysterii* of the present Dispensatory.

FOENICULI, Fennel, two sorts, *Vulgare Germanicum. Anethum fructibus ovatis var.* B. Linn. and *dulce offic.* C... B.... *Anethum fructibus ovatis*. Linn. The common Fennel flowers in June and July. It is said to be diuretic, and good against the stone in the bladder and kidneys. The common fennel is generally planted in gardens to be ready at hand, but grows wild in many places towards the sea-coast. The leaves, roots, and seed, are in use; the root being one of the five opening roots, and the seed one of the greater carminative seeds. The sweet fennel grows not so tall as the common, otherwise they are nearly alike, except in the seed; which in the sweet fennel is longer and narrower, of a yellow colour, and much sweeter taste. The seed is brought to us from Germany, and accounted better than that of

the common fennel. Boerhaave says, that the root of this plant exactly agrees in smell, taste, and medical qualities with the celebrated ginseng of the Chinese, and may be used instead of it.

LEVISIRICI, Loveage. This is the *Ligusticum vulgare* of C. and the *Vulgare foliis Apii* of J... B.... It is called *Laserpitium* by Gerhard; but the *Laserpitium* of Dioscorides, whence the gum *Laser* of the ancients, which is unknown to us, was produced, is of another kind. The loveage of Linnæus, in the *Ligusticum folis multiplicibus: foliolis superne incis.* Linn. This flowers in July. The root hath a hot biting aromatic bitter and sweetish taste. The whole plant may be used instead of the milder fetid gums, particularly the opoponax. In Italy, where it is native, the root is much used in hysteric disorders: the dose ʒj; in substance, two drams in infusion.

Semina, Seeds:

ANETHI, *Anethi hortensis* C... B.... of Dill. *Anethum fructibus compressis*. Linn. This greatly resembles common fennel, both in stalk, leaf, and root; but seldom grows so tall, or so much branched. The leaves and seeds are used; it is heating, drying, and carminative; a little more aromatic than those of fennel. The seed is accounted a specific in the hiccup and vomiting. The best preparations are the distilled oil; and a tincture, or an extract made with sp. vini r.

ANISI, of Anise. The official kind hath little other distinction than that of *Anisum Herbariis*, by C... B.... *Pimpinella fol. radicalibus trifidis incis.* Linn.

There

There is an Indian anise described from many botanic writers, by Dale; but it is little, if at all, used in our present Pharmacy. This is much cultivated in Malta, and thence chiefly brought to us. The common sort flowers and seeds in July; the root dying every year, after it has given the seed. It is cultivated in Germany; but the best seed, which is the smaller sort, comes from Spain. The seed only is used; being one of the four greater hot seeds. Water extracts very little of their flavour, rectified spirits the whole. These seeds are useful in cold flatulent disorders; and in the gripes to which children are subject.

CARUI, of Caraway. This hath very few distinctions of note. Gerhard describes it by the name of *Carcum*: John Bauhine, by that of *Caros*; but Caspar Bauhine by *Cuminum Pratenſe*, Meadow Cummin; *Carum*. Linn. which is the Caraway of the shops. It grows in meadow and pasture grounds, and flowers in June. The greatest part of the seed used comes from Germany. It is one of the greater hot seeds: it is stomachic, carminative, and good in the colic.

CORIÁNDRI, of Coriander. The—*Vulg.* of Park. . . and *Majus* of C. . . B. . . . *Coriandrum fructibus globosis*. Linn. It is found in the fields, and flowers in June. The plant, whilst green, has a nauseous disagreeable scent, like bugs; but the seed, when dry, smells very gratefully. The seed is ripe in July and August. It is strengthening to the stomach, and carminative: and for that reason frequently used along with purgative medicines.

CYMINI, of Cummin. The—*Vulg.* . . . of Park. . . the—*Se-*

mine longiore of C. . . B. . . *Cuminum*. Linn. It is one of the four greater hot seeds; and gives name to the *Emplaſtrum à Cymino*. It is much cultivated in the island of Malta, it flowers in June, and is reckoned a good carminative.

DAUCI CRETICI, *Daucus* of Crete, or *Cretenſis verus*, Candy carrots, or true *Daucus*. *Athamanta foliolis linearibus planis hirsutis petalis bipartitis, seminibus oblongis hirsutis, vel, Daucus Creticus*. Linn. The seed is long, and slender at both ends, swelling in the middle; of a pleasant smell, and sharp hot taste. It grows originally in Candy, and other places in the Levant. The seed is only used; being aperient, and good in disorders of the kidneys.

DAUCI SYLVESTRIS, distinguished *noſtras vulgaris*; our wild Carrot, or Birds-neſt. *Daucus seminibus hispidis, petiolis ſubtus nervosis*. Linn. The seed, when ripe, is rough, flatish, and hairy. It grows in pasture grounds, and fallow fields. Infused in ale, it is accounted a good diuretic; and greatly relieves in fits of the gravel and stone. It is also useful in uterine and hysteric disorders, it is weaker than the former, but stronger than the garden carrot seed.

FOENICULI, of Fennel. See the plant before described, in this class, amongst the herbs.

CARDAMOMI, Cardamoms are a seed which botanists distinguish by different names according to their various kinds. *Cardamum majus offic.* which comes from Java in India, is hardly ever met with in the shops; but the grains of paradise are substituted for it. The—*Minus offic.* of Bontius and Johnson, the *Minus vulgare* of Gerhard

hard and Parkinson, the *Simpliciter in offic. dictum* of C... B.... are the common Cardamoms, and are brought to us from Malabar, and other parts of India. They are the seeds of the *Amomum scapo simplissimo brevissimo, fructeis alternis laxis*. Linn. But the—*Maximum* of Gerhard, the *Melleguetta* of Johnson, the *Paradisi offic.* of C... B.... and *Grana Paradisi* of Parkinson, are common grains of Paradise. Cardamom seeds are a very warm, grateful, pungent aromatic, and frequently employed as such in practice: they have this peculiar advantage, that notwithstanding their pungency, they do not, like those of the pepper kind, immoderately heat, or inflame the bowels. Both water and rectified spirit extract their virtues by infusion, and elevate them in distillation; with this difference, that the tincture and distilled spirit are considerably more grateful than the infusion and distilled water: the watery infusion appears turbid and mucilaginous: the tincture made in spirit, limpid and transparent. The husks of these seeds, which have very little smell or taste, may be commodiously separated, by committing the whole to the mortar, when the seed will readily pulverize, so as to be freed from the shell by the sieve: this should not be done till just before using them; for if kept with-

out the husks, they soon lose considerably of their flavour.

LAURI BACCÆ, of Bayberries. These are the fruit of an aromatic oily-leaved tree, very commonly known; it is the *Laurus vulgaris* C... B.... *Laurus fol. lanceolatis venosis perennantibus, floribus quadrifidis*. Linn. The berries are stronger than the leaves, and afford much more oil. They are a warm carminative, and as such are used in flatulent colics, and some hyenic disorders.

These all agree in their carminative qualities, and are therefore frequently used in compositions of that intention; as also in glysters and discutient topics. The Aniseed was so much in favour with Helmont, as to obtain the name from him of *Solamen intestinorum*. The Coriander, as they do not so much abound with oil as the other, are more drying, and therefore frequently used for that intention. The Cardamoms of both kinds are much hotter, and upon that account stand frequently in composition with the simples of the foregoing class; and are also accounted provokers to venery. The cummin have a discutive plaster from their name in the College Dispensatory.

ANGELICA-ROOTS are likewise very efficacious in this intention; especially those from Spain; which are wonderfully discutive, and of a fragrant odour.

Class 3. Of Hysterics and Emmenagogues.

What we reduce under this head, may perhaps be more properly titled Uterines; for we shall here include, not only all that are called Hysterics by the writers of

physic, but also such simples as are accounted serviceable in menstrual obstructions: for such disorders bring on a great many symptoms which are always reckoned hysterical;

cal; and consequently, the means of removing them justly come into this class.

All of this kind are very remarkable for their strong scent; and have been by some distinguished into odoriferous and fœtid medicines. But of the former, such as musk, ambergrise, and the like, there are so extremely few constitutions with which they will agree, that we have refused most of them a place here.

Disorders of the womb, all which come under the name of Hysterical Affections, arise from too titillating or from too uneasy sensations. The former proceed from that irritation of the nerves, which the make and secretion of those parts have naturally subjected them to: this in some sort of constitutions arises to that degree, as to draw the whole system into disorder, and occasion a surprising variety of symptoms, as several sorts of convulsions, and species of madness; which therefore are by some termed *Furores Uterini*. Now these disorders seem to be most effectually allayed by such things as are, in a manner, the reverse of cordials; and both in smell and taste very offensive and disagreeable. And they seem to answer this end, by suffocating, as it were, the spirits, and damping their inordinate sallies; so that such stimulation ceases, and the fibres return to their natural tone and motions. For, as what is grateful to the senses gives an inexpressible emotion to the fine nervous filaments; so does what is fœtid and disagreeable quite destroy that emotion, and deaden it. And as the former kind consist chiefly of fine, subtile, volatile parts, by which, as was before explained, they are fitter to penetrate the

nerves; so these are generally of a clammy viscous contexture; and therefore fitter to envelope and entangle that subtile juice; whereby its motion is much retarded, and consequently the fibres rendered less springy.

In the latter case, the uneasiness of the burthen in gestation, and often the disorders of the fœtus itself, bring the womb, and by degrees the whole nervous system, into convulsive disorders; which admit of little or nothing to be done by way of medicine; but are best remedied by contributing to the ease, and gratifications of all the desires and cravings of the mother. But the worst mischief to these parts, is from a lodgment of some disagreeable matter upon their glands, whereby they are frequently apt to grow cancerous; or from an obstruction of the discharges, which at certain times nature (that is the constitution) requires to be made from those parts. In the first of these, all such things come to be deemed Hysterics, which by their deterfive qualities open those glands, and by degrees wear away the obstructed humours. In the latter are employed such as either give a greater force to the circulating blood, whereby it is enabled to break through the capillaries; or which so attenuate it, as to fit it, upon that account, the easier to flow through, and make the discharge required. And thus whatsoever in medicine, either simple or compound, contributes to any of these ends, though very different in their operations (as the original cause of the disorder may differ) they all come under this general appellation of Hysterics or Uterines.

Folia, Herbs:

ARTEMISIÆ, Mugwort, *Vulgaris major*, C... B... Its appearance somewhat resembles the common wormwood; the difference most obvious to the eye, is in the flowers, those of wormwood hanging downwards, whilst the flowers of mugwort stand erect. It is the *Artemisia foliis pinnatifidis planis incisus subtus tomentosus, racemis simplicibus recurvatis, floribus radio quinquifloro*. Linn. It is much used in complaints peculiar to the female sex. It is said to be opening and discutient; to promote the menses. In some places it is eat as a pot-herb. The Moxa, mentioned by Sir William Temple, is the production of this plant in China, entitled *Artemisia Chinensis, cujus mollugo Moxa dicitur*: and is by some supposed to be the *Ylzeuinpathi* of Hernandez.

ATRIPLICIS OLIDÆ, *sive Fœtida*, stinking Orache is a species of the Blitum, or wild Orache, and distinguished by Ray, *Blitum fetidum Vulvaria dictum*. *Chenopodium fol. integerrimis rhomboideo ovatis, floribus conglomeratis axillaribus*. Linn. It grows about dunghills, and flowers in August; but is of very little use in the present practice, though of some considerable repute for the same occasions as the former.

BASILEICI, *sive Ocimi*. Basil. This is likewise an ill-scented plant; and is found in very few compositions of medicines. It is reckoned of the same efficacy as the former in promoting the menstrual discharges.

BUPHTHALMI, Ox eye. This name is given to various distinctions of plants, of the *Chrysanthemum* kind, or the wild camomile: but the — *Cotula folio* of Bauhine

and Herman, is the kind referred to here, and comes under this class of Hysterics; by the same right as other like fœtid plants: but is hardly ever used.

CARDIACÆ, Mother-wort. In the catalogue of the botanic garden at Oxford, this is distinguished by *Marrubium Cardiacum dictum*: which makes it a species of the Horehound. It is the *Leonurus Cardiacæ, vel Leonurus fol. caulibus lanceolatis triolobi*. Linn. It grows in gardens, and places where dung is laid; and flowers in June and July. It is said to be cardiac, and good against many hysteric disorders; but is less noticed than it deserves.

CYPERI, Cyprus. This is by botanists divided into several kinds, of which the Indian spikenard is one: The most considerable of the other are the long and round; and they are both recommended for disorders of the nerves, of many kinds; but neither are much regarded in the present practice.

DICTAMNI CRETICI, Dittany of Candy. *Dictamnus flore albo*. Linn. This is of little use likewise, but in the fore-mentioned intentions.

LUPINI, Lupines; the seed of a plant distinguished into *Sativus* and *Sylvestris*; but the former only is what the present catalogue of the College refers to; but it is not much used, though recommended for the same intentions as the rest of this class.

MATRICARIÆ, Feverfew, called also *Parthenium*. *Matricaria fol. compositis planis, foliolis ovatis incis, pedunculis ramosis floribus albis*. Linn. It flowers in June and July. This is near a-kin to the mugwort; but much more fetid. It is of no use but as an ingredient in the bryony-water.

NEPELÆ,

NEPETAÆ, called also *Mentha felina* five *Cataria*, by Gerhard; Cat-mint. *Nepeta Cataria*. Linn. It flowers most of the summer months. This plant is of an offensive sinell, and very little used, unless in the bryony-water: it has ascribed to it the same virtues as mugwort and orache.

PULEGII, Penny-royal, *Latifolium* by C. B. *Mentha floribus verticillatis, foliis ovatis obtusis sub crenatis, caulibus subteretibus repentibus, flaminibus corolla longioribus*. Linn. It flowers in July and August. It is a very warm plant, of very subtle and penetrating parts, and is therefore aperitive, discutient, and carminative; but its chief virtues are in hysterical affections, and for promoting the menstrual evacuations. It is also of known efficacy in pleurisies and the jaundice; as indeed in all disorders arising from obstructions. It is an excellent pectoral, and given with great success in asthmas, and all difficulties of breathing. Some likewise commend its application outwardly in pains of the head. For its many good qualities, it has a place in several of the shop-medicines now in use: and for the abundance of oil which comes over with it, the simple water drawn from it is very efficacious for many of the fore-mentioned purposes; though somewhat inferior to a decoction, but not so unpleasant. It is observable, that both water and rectified spirit, extract the virtues of this herb by infusion, and elevate them in distillation.

SABINÆ, Savin. This plant is an ever-green, and distinguished—*Vulgaris, or Sterilis*, by Parkinson, Gerhard, and John Bauhine, in opposition to the *Sabina Baccifera, folio Cupressi*. *Juniperus sol. oppo-*

fitis erectis decurrentibus oppositionibus pyxidatis. Linn. This is hot, attenuating, and very detergent. It is a most powerful cleanser, and therefore good in all obstructions of the *Viscera*, where a constitution can bear its efficacy. It promotes the glandular secretions in general. Its essential oil is very powerful and peculiarly useful in lax or sluggish habits. It is likewise esteemed of great service against worms; and its essential oil, of which it affords great plenty, is frequently used for that purpose, in outward applications to the belly.

RUTÆ; Rue. *Hortensis Latifolia*, C . . . B . . . The common garden rue. *Ruta foliis decompositis, floribus lateralibus quadrifidis*. Linn. It flowers in June. Schroder commends it as an alexipharmic and a cephalic; says that it is good in all convulsive cases. It is replete with a fat viscous juice: and therefore yields little to any good purpose in distillation, unless where first digested in a spirituous menstruum. Hence its simple water in the shops does not contain the full virtues of the plant; how much soever valued by some. It may be eat alone, fresh gathered, as many do with bread and butter; or made into a conserve. It is of excellent service in all nervous cases; and particularly in such as arise from the womb; as it deterges the glands, and by its viscosity bridles those inordinate motions which frequently begin there, and affect the whole constitution. An extract made by rectified spirit of wine, contains in a small compass, the whole virtues of the rue.

SEMINA PÆONIÆ, Piony Seeds, are often used with this intention, and seem to owe their virtues of this kind to the same tenacity and disposition

disposition of parts, as most of this tribe do.

ASAFOETIDA, the concrete juice of a large umbelliferous plant growing in Persia. The *Perula Persica umbellifera, foliis alternatim sinuatis obtusis, floribus ex viridi luteis*. Linn. This juice exsudes (from wounds made in the root of the plant) liquid and white like milk; on being exposed to the air, it turns of a brownish colour, and gradually acquires different degrees of consiſſency. It is brought to us in large irregular masses, composed of various little shining lumps or grains, which are partly of a whitish colour, partly reddish, and partly of a violet hue. Those masses are accounted the best which are clear, of a palish red, and variegated with a great number of elegant white tears. This juice has a strong fetid smell, somewhat like that of garlic; and a bitter, acrid, biting taste. It loses with age its smell and strength, a circumstance to be particularly regarded in its exhibition.—This juice consists of about one third pure resin, and two thirds of gummy matter; the former is soluble in rectified spirit, the other in water: proof spirit dissolves almost the whole into a turbid liquor: the tincture in rectified spirit is transparent.—Asafœtida is the strongest of the fetid gums, and of frequent use in hysterical complaints. It is likewise of considerable efficacy in flatulent colics; and for promoting all the fluid secretions in either sex. The ancients attributed to this medicine many other virtues, which are at present not expected from it.

GALBANUM, is a gum, brought from some parts of Syria, of a yellowish hue. The tree which produces it is of the serulaceous kind;

the *Bubon foliolis rhombicis, dentatis glabris striatis, umbellis paucis*. Linn. Our druggists compliment the apothecaries by selling it to them ready strained; but most of that so managed is to be suspected of adulteration; as it is much inferior in strength and smell to the genuine gum, which is warm, emollient, resolving, and good in all hysterical affections; but it is chiefly used plasterwise to the navel. It loosens the belly, both inwardly and externally used. The best dissolvent of the drug is two parts of spirit of wine and one of water.

MYRRHA, Myrrh. This is a resinous gum, and comes from the East-Indies. Supposed to be the produce of the *Scandix feminibus sulcatis angulatis, floribus albis*. Linn. That which is most clear, brittle, light, and fragrant of smell, is best. It is of great use in medicine; insomuch as to enter into compositions almost of all intentions. It is warm and bitterish, and upon that account found helpful to the bowels and stomach. It will frequently, by a prudent administration, remove agues. It promotes the secretions in general, and is very serviceable in languid cases, diseases arising from inactivity, those female disorders that proceed from a cold, mucous, sluggish indisposition of the humours, cachectic complaints, &c. &c. It is a powerful resister of putrefaction, and in malignant and pestilential fevers, it has always been reckoned excellent in times of the plague, people carry it and chew it in their mouths, to prevent infection. It is of manifest service in ripening the small pox; especially that sort where the pustules rise with a pellucid humour. Its bitter taste makes it difficult to give to children
in

in such cases; otherwise there is nothing more safe and efficacious; as likewise in abating that restlessness which arises from tickling discharges of rheum: and by the same quality it is good in all catarrhs. Its peculiar bitterness makes it effectual against worms. And the *Elixir Proprietatis* is much the better medicine, for what it has of this in its composition. It is likewise reckoned, outwardly applied, a great detergent. It is also an excellent dentifrice; and keeps the gums from wasting and stinking. But its most celebrated virtues are what give it a place in this class, *viz.* being both a great cleanser and strengthener of the womb. It promotes the menses; and is indeed good in all hysterical affections, administered either in pills, boluses, or tinctures; it not conveniently agreeing with any other forms. Rectified spirit of wine extracts the fine aromatic flavour and bitterness of the myrrh, and does not elevate any thing of either in evaporation: the gummy substance left by this menstruum has a disagreeable taste, with scarce any thing of its peculiar flavour; this part dissolves in water, except some impurities which remain. In distillation with water, a considerable quantity of a ponderous essential oil arises, resembling in flavour the original drug.

Radices, Roots of,

ARISTOLOCHIE LONGÆ, Long Birthwort. *Aristolochia longa vera, foliis cordatis petiolatis integerrimis obtusiusculis, caule in firmo, floribus solitariis.* Linn. It is of a sub-acrid aromatic taste, and by all accounted a provoker of the menstrual discharges. It hath ascribed to it also some alexipharmic quali-

ties. Both this and the round fort, heat, stimulate, attenuate viscid phlegm, and promote the fluid secretions in general.

ARISTOLOCHIE ROTUNDÆ, Round Birthwort. *Aristolochia foliis cordatis, caule erecto floribus axillaribus confertis.* Linn. It differs not from the former, but in shape, has the same virtues ascribed to it, and enters into the same composition as the former. This grows chiefly in France, as the former does in some parts of Italy.

BRYONIE, Bryony. *Brionia fol. palmatis utrinque calloso scabris.* Linn. The root of this plant is often mentioned as a powerful purger, and chiefly of water: the dose is a dram in substance, or half an ounce infused in wine. A cataplasm of the root is a powerful discutient. It is now scarce used in any composition but the *Aq. Bryonice comp.* which is prescribed in almost all hysterical complaints. The active virtues of this plant seem to claim more attention than is now bestowed upon it.

BELLIDIS MAJORIS, the greater, or Ox-eye Daisy, in distinction from *Bellis Minor*, the lesser common daisy. The first only is used in medicine; and is ranked by some authors under this intention. It is reckoned a vulnerary, and particularly an uterine.

CASSAMUNAIR, Cassamunair. This is made a species of the galangals, and by some is called Ryfagon. It comes to us from the East Indies, and stands recommended in all nervous affections. Some make it a species of the zedoary; and the present practice takes notice of it as a good stomachic. Rectified spirit of wine extracts all its virtues.

Animals.

Class 1.

Moschus, Musk: a grumous substance like clotted blood, found in a little bag, situated near the umbilical region of a particular kind of animal met with in China, Tartary, and the East-Indies: The *Moschus folliculo umbilicali*. Linn. The best musk is brought from Tonquin, an inferior sort from Agria and Bengal, and a still worse from Russia.

Fine musk comes to us in round, thin bladders; which are generally about the size of a pigeon's egg, covered with brown short hairs, well filled, and without any appearance of having been opened. The musk itself is dry, with a kind of unctuousity, of a dark reddish brown, or rusty blackish colour, in small round grains, with very few hard black clots, and perfectly free from any sandy or other visible foreign matter. If chewed and rubbed with a knife on paper, it looks smooth, bright, yellowish, and free from grittiness. Laid on a red hot iron, it catches flame, and burns almost entirely away, leaving only an exceeding small quantity of light greyish ashes; if any earthy substances have been mixed with the musk, the quantity of the residuum will readily discover them.

Musk has a bitterish subacid taste; a fragrant smell, agreeable at a distance, but when smelt near to, so strong as to be disagreeable, unless weakened by the admixture of other substances. If a small quantity be infused in spirit of wine in the cold for a few days, it imparts a deep, but not red tincture: this though it discovers no

great smell of the musk, is nevertheless strongly impregnated with its virtues; a single drop of it communicates to a whole quart of wine a rich musky flavour. The degree of flavour which a tincture drawn from a known quantity of musk, communicates to vinous liquors, is perhaps one of the best criteria for judging of the goodness of this commodity. Neumann informs us, that spirit of wine dissolves ten parts out of thirty of musk, and that water takes up twelve; that water elevates its smell in distillation, whilst pure spirit brings over nothing.

Musk is a medicine of great esteem in the eastern countries; among us, it has been for some time pretty much out of use, even as a perfume, on a supposition of its occasioning vapours, &c. in weak females, and persons of a sedentary life. It appears, however, from late experience, to be, when properly managed, a remedy of good service even against those disorders which it has been supposed to produce. Dr. Wall has communicated (in the Philosophical Transactions, No. 474.) an account of some extraordinary effects of musk in convulsive and other diseases which have too often baffled the force of medicine. The doctor observes, that the smell of perfumes is often of disservice, where the substance taken inwardly, and in considerable quantity, produces the happiest effects: that two persons, labouring under a *subfultus tendinum*, extreme anxiety, and want of sleep, from the bite of a mad dog, by taking two doses of musk, each of which was sixteen grains, were perfectly relieved from their complaints. He likewise observes, that convul-

five hiccups, attended with the worst symptoms, were removed by a dose or two of ten grains : and that in some cases, where this medicine could not, on account of strong convulsions, be administered to the patient by the mouth, it proved of service when injected as a glyster. He likewise adds, that under the quantity of six grains, he never found much effect from it ; but that given to ten grains and upwards, it never fails to produce a mild diaphoresis, without at all heating or giving any uneasiness ; that, on the contrary, it eases pain, raises the spirits, and that after the sweat breaks out, the patient usually falls into a refreshing sleep ; that he never met with any hysterical person, how averse soever to perfumes, but could take it, in the form of a bolus, without inconvenience. To this paper is annexed an account of some farther extraordinary effects of musk, observed by another gentleman. Repeated experience has since confirmed its efficacy in these disorders. I have myself frequently exhibited it with remarkable success ; and sometimes increased the dose as far as twenty grains every four hours, with two or three spoonfuls of the musk juleps between. There are not perhaps many examples of its proving ineffectual, unless where the musk (which too frequently happens) was of a bad kind.

UNGULA ALCIS, Elk's Hoof. This is also esteemed of mighty efficacy in distempers of the head ; and is an ingredient in the *Pulvis de Guttula* of Riverius before mentioned ; but in little else. Naturalists tell us that the creature itself first gave to mankind a hint of its medicinal virtues ; for they

say, whenever it ails any thing in the head, it lies in such a posture as to keep one of the tips of a hoof in its ear ; which after some time effects a cure. But this I leave to be credited by those of more faith than myself.

Class 2.

CASTOREUM, Castor. This is generally taken for the beaver's testicles, (*Castor cauda ovata plana*. Linn.) which is an amphibious animal, not much unlike an English otter : but this is a vulgar error ; for it is the inguinal gland of this animal. It is brought from Hudson's Bay, New England, and Russia : the latter is much the best. The cods are much rounder than the other, and harder ; and the inclosed castor is of a much redder colour, and a more fragrant, volatile, and pungent scent. This is of very extensive use in medicine, and enters into almost all the nervine compositions of the shops, as well as the extemporaneous prescriptions of like intentions. It is extolled as a capital nervine and antihysterical medicine. Its virtues are considerable, but far short of what some suppose them. In the height of fevers, when the nerves begin to be convulsed, it is very effectual not only to keep off a *delirium*, but to forward a *diaphoresis*, and bring the distemper to a crisis. The tincture which is made of it, is an excellent medicine ; but what chemists pretend to sell for a spirit of Castor, is good for little or nothing, as being too fat and tenacious a substance, to rise over the helm with any menstruum whatsoever. It is therefore much the best if given in substance, or tincture ; wherein it will almost entirely open and dissolve.

Of Minerals.

Class I.

AMBRAGRISEA, Ambergrise. Naturalists much differ about the production of this simple; though it is generally agreed to be a kind of *bitumen*, generated in rocks which are washed by the sea, and thrown upon the shore by the waves: yet it is probably an animal substance, matter much resembling it having been found in the urinary bladder of the spermaceti whale. It is distinguished into *Grisea* and *Nigra*; but the former only is in esteem and use, and is known to be genuine by its fragrant scent, when a hot needle or pin is thrust into it; and its melting like fat of an uniform consistence: whereas the counterfeit will not yield such a smell, nor prove of such a fat texture. We have not room here to enter into a detail of opinions, of but little moment to our present design: we shall only observe it to be much of the same medicinal virtues as musk (which see above) to be used in the same intentions, and generally to enter into the same compositions; but it is of a somewhat weaker scent.

SUCCINUM, Amber. This is a bituminous juice or resin, which from a fluor grows hard and brittle; for that it was once in a state of fluidity, is manifest from the several parcels of it, which have inclosed straws and insects of various kinds. The largest quantities are found on the shores of Polish Prussia and Pomerania; the whitest and most transparent is accounted best. It is of no great use in medicine *per se*; as its texture seems

too compact to open and yield to the natural elaborations of the body; though some have a great opinion of it as a balsamic, and give it in gonorrhœas particularly: and it is also an ingredient in the Gascoign's powder. But certain it is, that what the art of Pharmacy extorts from it is of wonderful efficacy, especially in nervous cases. The salt of amber is an incomparable medicine, as we shall farther see hereafter: and the oil likewise is very powerful in many cases, outwardly used. The *Caput Mortuum*, which remains after the salt and oil are gone over, is, by some ingenious persons, who have been very inquisitive into this matter, conjectured to afford that powder, which has been so industriously quacked upon the world for a specific in convulsions; and is sold under the title of Dr. Morton's Antispasmodic Powder.

CINNABAR. NATIV. Native Cinnabar. It is very heavy; and of a beautiful red colour. It is a composition of quicksilver and sulphur; it is an ore of quicksilver; and we have it chiefly from Hungary, and some parts of Germany; it is taken out of the mines as it comes to us. It is by many accounted a good remedy in epilepsies; but others assert it to be inert. The facitious should always be preferred to the native cinnabar in medicine, as the former sometimes contains some arsenical particles. It is indissoluble in the animal fluids, or in any known acid, alkaline, or other menstrua—its action seems to be only in the *prima via*, and thereby removes many complaints, which, though appearing elsewhere, have their origin there, in foulness of the skin, as in the
itch

itch and leprosy, there is not any one thing better. It may be given in considerable doses, without any danger of those inconveniences

which sometimes happen from mercurials; it is likewise by many reckoned good against worms.

S E C T. II.

Of Corroboratives.

BY strengtheners, we would be understood to mean such things as add to the bulk and firmness of the solids: and these differ from what has been ranged under the preceding section, as a bandage does from a flesh-brush. The former are such as facilitate and drive on the vital actions; but these such as confirm the *Stamina*, and maintain the solids in a condition to exert themselves into action on all proper occasions, with the greatest force and vigor.

The continual waste which constant motion makes in the constitution, were it not for frequent and proper supplies, would soon wear the body quite out. The attritions and abrasions of the circulating fluids would quickly carry away the canals in which they circulate, were not somewhat furnished and conveyed to them, which is suited to fall into and adhere with them, and to recruit what is washed off. And those particles must be much more disposed to do so, whose adhesions are greatest when once they come into contact; such are those of the bodies we call glutinous; and which easily form themselves into jellies, and such like consistencies: for the parts of such bodies are very light, by reason of the over-proportion of their surfaces to their solidities: whereby

their motions are both more languid when in circulation; and when once they stop, their cohesions will be so much the stronger with whatsoever they happen to fall into contact. Medicines of this tribe are, therefore, of great service in hectic, where the swift motion of a thin sharp blood wears away the substance of the body, instead of nourishing it; for they not only retard the inordinate motion, but give such a weight and consistence to the juices, as fits them also for nourishment.

There are likewise other causes, which may weaken the solids, by admitting, or occasioning them to relax too much. Whatsoever therefore acts as a stimulus, and crisps and corrugates the fibres into a more compacted tone (which most austere and pointed bodies do) will remove such weakness, and increase strength: and as also too much moisture may contribute to such relaxation, what has no other quality but absorbing and drying up such superfluous humidity, may deserve, though accidentally, to come under this denomination.

And thus we have a clear notion of the three subdivisions made under this head, and the manner by which they severally operate in bringing about the main intention. This therefore, it is hoped, may serve

serve for an explication of the three subsequent classes; observing that under the last do very naturally fall all those things which usually pass for sweeteners: for that term can have no other meaning, than that the animal fluids are by them rendered less sharp; and this cannot be done but either by breaking

off the points or asperities of their particles, or by absorbing them, by soft and porous bodies, that they cannot be perceived. Increase of motion conduces to the former; and what comes under the third class of this division, will do the latter.

Class I. Of Agglutinants.

Folia, Herbs or leaves of,

AMARANTHI. Maranth, or Love-flower; of its various kinds, the *Amaranthus maximus simplicipanicula*, the greater love-flower with a simple pannicle, of C. B. is the most noted. It is cultivated in the gardens, and flowers in August. It is moderately drying and restraining; and is recommended in fluxes of all kinds. Some ascribe to it a virtue to breed milk in the breasts of women who give suck. But it is of no use in modern practice.

APARINÆ, Clivers. *Galium aparine fol. octonis lanceolatis, carinis scabris retrorsum aculeatis,geniculis villosis fructibus hispidis*. Linn. It flowers in May and June. It is said to warm and dry, and is recommended in cachexies and scrophulas; but modern practice hath no regard to it.

ARGENTINÆ, Silver-weed, Wild-tansy or Goose-grass. It is without smell or taste, and grows plentifully by hedges or highways, as also in meadows. It flowers in May and June: and is recommended for its cooling restraining qualities.

AURICULÆ MURIS, Mouse-ear. Botanists distinguish many sorts of it, but the officinal kind is. he—*Major repens hirsuta*, the

greater creeping hairy Mouse-ear of C. B. *Hieracium foliis integerrimis ovatis subtus tomentosis, caule repente, scapo unifloro*. Linn. It stands recommended for an astringent and vulnerary; but the modern practice does not much use it in any intentions.

BURSÆ PASTORIS, Shepherd's Purse; is a species of the *Thlaspi*, called by Ray, *Thlaspi fatuum*. It is the *Thlaspi majus, foliis radicalibus, pinnatifidis, siliculis obcordatis* Linn. It flowers in April. Its juice is said to be very astringent and glutinous; to stop bleeding at the nose; also good against spitting of blood, in diarrhœas, dysenteries, and bloody urine. But experience does not establish these qualities.

CAUDÆ EQUINÆ, Horse-tail. *Equisetum Palustre longioribus setis*. C. B. the Great Marsh Horse-tail, its virtues are such as may properly rank it in this class; but the present Pharmacy is a stranger to it. It is astringent in a low degree.

CENTINODII, Knot-grass, otherwise called *Polygonum*; by the Bauhines *latifolium*. *Polygonum aviculare floribus octandris trigynis axillaribus, foliis lanceolatis, caule procumbente herbaceo*. Linn. It grows in sandy places; and is said to

to be astringent and vulnerary; but is very little used.

CINARÆ, the Artichoke; otherwise called *Scolymus*, and distinguished—*Hortensis foliis non aculeatis* & *aculeatis* by C. B. *Cynara scolymus*. Linn. It is too commonly known to want farther description; but although it is by some accounted a diuretic, and good against the jaundice, yet it is in esteem only as food: wherein it is valued for those virtues which belong to this class.

CORNI, the Cornelian-tree, *Sativa sive domestica* by J. B. Its fruit astringes, cools, and agglutinates; but common practice takes no notice of it.

CORONOP, is a species of the Plantain, *Cornu cervinum vulgo Spicâ Plantagineâ*, J. B. *Plantago coronopus*. Linn. Buckhorn Plantain. It grows in sandy places, and is recommended for the same virtues as belong to this class in general; but it enters very little into the present practice.

COTYLEDON, called also *Umbilicus veneris*, Navel-wort distinguished by Caspar—*major*, and by J. B. *Cotyledon umbilicus tuberosa*. Linn. It grows on stones and walls; and flowers in April. But is but little regarded in our present Pharmacy.

CYNOGLOSSI, Hounds-tongue. It flowers in July. It is reckoned to cool and incrassate; and therefore has been used in catarrhs, fluxes, and gonorrhœas. It is not now much in use.

GALLI, distinguished *luteum* and *verum* by the Bauhines; Ladies Bed-straw. *Galium verum, vel Galium foliis octonis linearibus sulcatis, ramis floriferis brevibus, flore luteo*. Yellow Ladies Bed-straw, or Cheese-rennet. Linn. It grows

in dry pasturage, and flowers in June and July; but though it is by some commended for stopping hæmorrhages, yet it is not much in use. The juice changes blue vegetable infusions of a red colour, and coagulates milk, and thus discovers an acidity.

GALEOPSIS, Archangel. It flowers in May and June. There are many sorts, but mostly the white is used in medicine.

GERANII, Cranes-bill, distinguished into *Columbinum*, called also *Pes Columbinus folio Malvæ rotundo*,—*Moschatum cicutæ folio*, and—*Robertianum murale*, called likewise *Gratia Dei*; which is the herb Robert of the Wall. *Geranium Robertianum pedunculis bifloris, calycibus pilosis decemangulatis*. Linn. But though all these are recommended for virtues belonging to this class, yet they are seldom met with; either in officinal or extemporaneous prescriptions. This species, i. e. the herb Robert, is considerably astringent. Bruised, and applied to places where bugs are, it drives them away.

HORMINI, Clary, *Hortense Salvia Sclarea*. Linn. It flowers in June and July. It is of a pleasant scent, and is much in esteem amongst the good women for weaknesses they are subject to; and chiefly the whites. The shops have a spirit under its name, which is drawn from an infusion of the herb in spirit of wine, and is very pleasant, and a good cordial. Et-muller will not have it give place even to Castor, in hysterical affections; and affirms there is not a better remedy in colics.

MUSCI PIXIDATI, Cup-moss. This, with some other mosses of like kind, have been mightily in vogue amongst the good women for

for their children's coughs ; but they have not obtained in official nor extemporaneous prescriptions. Dr. Willis is the best authority we have for their wonderful virtues : and he makes them almost infallible, in that which is commonly called the chin-cough.

PLANTAGINIS, Plantain, is distinguished into *latifolia*, called *septinervia* ; and *angustifolia*, or *quinquenervia*, sometimes denominated rib-wort. The *Coronopus* is a species of it, but the first sort only is used in medicine. i. e. *Plantago latifolia major, foliis ovatis glabris, scapo tereti, spicaflosculis imbricatis*. Linn. This flowers in May and June. It is reckoned a great cooler and stopper of fluxes ; particularly of blood ; whether from the nose, mouth, or uterus.

SCOLOPENDRII, Spleen-wort. *Asplenium Ceterach*. Linn. It is the same as the *Asplenium* and *Ceterach* of the shops, but is little used in medicine ; though it is accounted binding and strengthening. Formerly it has passed for a detergent, and been reckoned such a scourer of the spleen, (from whence the name of spleen-wort) that Dioscorides relates, steeping it in hot vinegar, and drinking it forty days together, it has washed away the whole substance of the spleen.

Flores, Flowers :

CONSOLIDÆ MAJ. Comfrey. This is the same plant as the *Symphytum*. *Symphytum foliis ovato lanceolatis decurrentibus*. Linn. It blows in May. The name *Consolida* is also given to some other distinctions of plants ; as, — *Media* to the Bugle, — *Minima* to the common Daisy, and — *Saracenica*, to a species of the Golden-rod,

called *Saracens Confound* : but these are very little required in Pharmacy. They are accounted good in seminal weaknesses particularly. Ettmuller observes them to be the only ingredients of this tribe, which very gently loosen the belly.

Semina, Seeds of,

AVENÆ, Oats.

FABÆ, Beans.

ORIZÆ, Rice.

PISI, Pease.

TRITICI, Wheat.

VERMECELLI.

SAGO. These are very much of the same virtues. The five first are too well known in our own country to need any description : Sago is a whitish brown, spherical, granulated substance, of the size of pearl-barley ; having very little smell or taste. It is obtained from the inward pith of a species of the palm-tree, or *Palma prunifera*, or bread-tree. *Cycas Indica, frondibus pinnatis circinalibus, foliis linearibus planis*. The Sago-tree. Linn. The manner of obtaining it, see in Dampier's Voyage, Vol. I. It is accounted very nourishing and restorative, especially for people of weak stomachs, or those in consumptions, or subject to diarrhoeas, or fluxes of any kind. Vermicelli is made of rice flour mixed with the whites of eggs, and passed through proper sieves to give it its vermicular form ; as it boils, the white hardens, and thereby the form is preserved. They are all very nourishing in food. In medicine they are little used ; unless in some particular intentions they are prescribed in cataplasms, and outward applications. Sago does not ferment in the stomach, so is preferable to wheat.

wheat-flour for the food of infants.

Gummi, Gums:

ARABICI, Arabic. This gum is very common. That is accounted best which is in smaller pieces, and almost of a white colour. It flows from the Acacia, or Egyptian thorn. *Mimosa Nilotica* of Linnæus. It very easily dissolves in any aqueous liquor; and is good in all kinds of fluxes, particularly catarrhs, by thickening and softening the thin humours.

The virtues of gum are similar to all mucilaginous substances in general, and wherever a mucilage is required, this gum may be administered; one ounce renders a pint of water considerably glutinous, and four ounces gives it a thick syrupy consistence. A great advantage we have from a mucilage made with gum arabic and water, in mixing various bodies with water, which, without the intervention of some proper medium, would never be made to unite with it. This mucilage joined with acids, both mineral and vegetable, with neutral saline mixtures, with oils, balsams, and resins, with essential and expressed oils, readily unites them with water, and form an homogeneous mixture. But alkalines, both fixt and volatile, prevent the mucilage from thus acting as a medium, and if already mixed, will cause a separation; and hard calcareous water too, render the mixture impracticable. Another advantage of this mucilage is, that it conceals disagreeable tastes, covers pungency, preserves the substances that it is united with, and is not in danger of becoming rancid, a complaint often made against eggs.

The mucilage may be kept

ready for use, consisting of one part of the gum to two parts water, or of the gum and water, equal parts. One dram of the stronger mucilage rubbed well with two drams of the oil of olives, linseed, or almonds, makes them readily mix with water into an homogeneous mixture, like the emulsions made of oily fruits and seeds. Balsam Peru, Capivi, Gilead, guaiacum, turpentine, and all resinous tinctures, myrrh, bals. Tolu. oil of aniseeds, cloves, nutmegs, and camphor, and musk, also spermaceti, oil of vitriol, elixir of vitriol, spirit. nitri dulcis all mix very readily with water, if first rubbed a little with from half to equal quantities of the mucilage --- Bees-wax, if first dissolved in rectified spirit of wine over the fire, may be made to unite with any watery fluid by the use of this mucilage as a medium---the mixture of a little sugar or syrup assists the mucilage, after which any spirituous water may be added, and lastly the aqueous fluid.

ICHTHYOCOLLÆ, Isinglass. It is certain membranous parts of several sorts of fishes, divested of their native mucosity, afterwards rolled and twisted, and dried in the open air. The sounds or air bladder is principally preferred, as it is the most flexible and transparent. In Iceland it is produced from the sounds of the cod and ling fishes. In Russia the sounds of the sturgeon are manufactured into this article. The best pieces are those that are thin, whitest, and most transparent. It is very glutinous, whence used in those disorders which arise from too thin and sharp a state of the fluids. In female weaknesses, or the fluor albus, &c. it is peculiarly useful. Also in hæmorrhages, and various defluxions.

KINO.

KINO. Also called *Gummi Rubrum astringens Gambiense*. Red astringent gum from Gambia. *Sanguis Draconis ver. & offic. Gum. Senegal. ver. &c.* It is very friable, easily breaking between the fingers; of an opaque, dark, reddish colour, appearing almost black in the mass, and when powdered, it is of a deep brick-red. In chewing it first crumbles, then sticks together a little, and in a short time seems wholly to dissolve, impressing a very considerable astringency, accompanied with a slight sweetness. It hath no smell. It differs from the red lumps of the common gum Senegal in being much more brittle; and from the dragon's blood, in dissolving in water; and from both in having so remarkable a stypticity when tasted. It dissolves both in water and in spirit; they each take up about two thirds of it. It hath been used in obstinate chronic diarrhoeas; and seems calculated for usefulness in many disorders from laxity and acrimony. It exceeds the *Terra Japonica* in astringency.

OLIBANI, Olibanum, called also *Thus Masculum*, or the male frankincense. This is a gum not greatly unlike mastick, but not so white or brittle. It is very glutinous, and consequently strengthening; but partakes so much of the turpentine kind, as to be somewhat detergent; for we find it will make the urine smell, if taken inwardly in a considerable quantity.

SANGUIS DRACONIS, Dragon's blood. The resin of a tree in the East Indies. It readily melts and catches flame, and is not acted on by watery liquors. It totally dissolves in pure spirit, and tinges a large quantity of the menstruum of a deep red colour: it is likewise

soluble in expressed oils, and gives them a red hue, less beautiful than that communicated by anchusa. This drug, in substance, has no sensible smell or taste; when dissolved, it discovers some degree of warmth and pungency. The shops shew two kinds of this drug, which differ only in fineness; the best being wrapped up in bags. It is experienced to be of an agglutinating quality; and is prescribed with success in most fluxes and hæmorrhages.

TRAGACANTHÆ, Gum Dragant, Tragacanth, is a gum from the goat's thorn. *Astragalus Tragacantha orientalis humillimus, flore magno albo.* Linn. That is best which is whitest and lightest. It dissolves easily in any aqueous menstruum; to which it will give the consistence of a syrup, in the small proportion of a dram to a pint. It is smooth and softening, and therefore good to obtund the acrimony of any humours; which makes it of service in such coughs as proceed from catarrhs and defluxions of rheum. It is also very strengthening in some seminal weaknesses, and prevalent against the whites in women; especially if skilfully dissolved in rough red wine: in which form I have often known it given in those cases with good success.

Cortices, Barks of;

CASSIÆ LIGNÆ, Cassia Bark. This is a bark which by infusion, or a little boiling, runs very much into jelly: and is of the same virtue with most things of the like nature. The tree from whence it is produced, is called *Canella Malabarica & Javanensis*, or *Arbor Canellifera Malabarica*. It is the *Laurus Cassia* of Linn. whose leaves are the officinal *Malabathrum*. This bark very much resembles cinnamon

cinnamon in appearance and taste, insomuch as to entice some to use it in its stead; being much cheaper, though not by far so good. If chewed it seems to dissolve into a slimy substance, by which it is distinguished from cinnamon. The distilled oil hath the same qualities as that of cinnamon.

RAD. CONSOLIDÆ. Roots of Comfrey. *Symphytum foliis ovato lanceolatis decurrentibus flore purpureo.* Linn. These are more efficacious in this intention than the flowers. They are sometimes made

into a conserve in the shops; but such slimy or glutinous bodies are very imprudently worked up into such forms; because the sugar, in a little time destroys that very texture from whence their medicinal virtues arise. This root is very conveniently boiled up into a jelly; and if it be a little sweetened, as it is used, is not at all amiss. It is very strengthening, and good against all fluxes whatsoever; but particularly feminal weaknesses, old gleans, and the whites in women.

Class 2. Of Astringents.

Folia, Herbs of,

GLASTI, Woad. *Isatis Tinctoria.* Linn. This is cultivated in many inland counties, and is much used in dying. It is what the ancient Britons used to paint themselves with. It is not much used in medicine, but accounted very astringent, and effectual in stopping hæmorrhages.

GNAPHALII, Cudweed,—*Vulgaris majus,* and *Germanicum,* by the Bauhines. *Filago Germanica.* Linn. It grows in dry places, and flowers in June. It is drying and astringent; and recommended in dysenteries, hæmorrhages, and all kinds of fluxes; but the modern pharmacy makes little use of it.

HERNIARIÆ, Rupture-wort. *Polygonum minus seu millegrana major,* C. B. *Herniaria Glabra.* Linn. It flowers in June and July. Schroder commends it in a diabetes; says it helps to dissolve the stone, and absterges the *mucus* from the stomach, and other parts where it is apt sometimes to collect in too great quantities; and that it purges choler, and is therefore good in

the jaundice. It is a very mild astringent.

MENTHÆ, Mint; distinguished *Angustifolia spicata* by Casp. Bauhine: there is also a *Mentha aquatica*, water-mint called *Sisymbrium*; and a *Mentha sylvestris*, called *Mentastrum*, horse-mint. The mints in use are the *Mentha spicis oblongis, foliis lanceolatis nudis serratis fissilibus, staminibus corolla longioribus.* Linn. Spear mint, and the *Mentha floribus capitalis foliis ovatis petiolatis, staminibus corolla brevioribus.* Linn. Pepper-mint. The Spear Mint is justly esteemed a strengthener of the stomach, and is of great service in taking off nauſeousness and reachings to vomit; as also in stopping fluxes of the belly. Its fragrant scent makes it enter into many compositions as a cephalic. There are several medicines made of it in the shops; but the spirit, and the distilled water, are the principal. In the forementioned cases, it is used with good success in fomentations, outwardly applied with hot cloths to the stomach and belly. The Pepper Mint

is useful in flatulent colics, languors, and such-like disorders.

MILLEFOLIUM, Yarrow, is distinguished—*Vulgare album*, C. B. It is the *Achillea foliis bipinnatis nudis laciniis linearibus dentatis, caulibus sulcatis*. Linn. It flowers in June. This plant is not much in use; yet Schroder highly extols it for a drier and an astringent; and says it relieves hæmorrhages, and defluxions of all kinds; whether of the nose, womb, bowels, fresh wounds, spitting of blood, vomiting, diabetes, &c. and commends its outward use in ruptures, and all manner of weaknesses.

PIMPINELLÆ, Burnet, or *Sanguisorba minor hirsuta & lævis* of C. B. *Poterium sanguisorba in erme, caulibus subangulosis*. Linn. It grows on hilly pastures; and flowers in July and August. It is hot, drying, and astringent; yet by the former qualities it obtains a place also among the detergents; as it has a quick pungency on the palate; so that it is said to open, attenuate, and promote sweat.

SANICULÆ, Sanicle, called also *Diapentia*. *Sanicula Europæa*. Linn. It grows in woods and hedges, and flowers in June, when it ought to be gathered. It heats, dries, and astringes.

URTICÆ, Nettles. These are distinguished into—*Urens vulgaris*, the common stinging nettle, and—*Romana sive mas cum globulis*. The—*Mortua* is the *Lamium*, which see under that word. They are placed under this class, for their known properties in stopping hæmorrhages; and particularly spitting of blood, and bloody urine; the roots especially: yet they are commended in other intentions, and are accounted diuretics, and breakers of the stone in

the bladder. They are said to have a singular property in removing the narcotic impressions of hemlock and henbane. Their use in composition is very little: the seeds are ofteneft prescribed.

UVA URSI. *Arbutus caulibus procumbentibus foliis integerrimis*. Linn. Perennial leaved Strawberry-tree. Bear's wortle berry. This plant is found in the highlands of Scotland, and on the mountains of Wales. The stems are trailing, leaves very entire, cups purple, blossoms white. The berries are insipid, pulpy, and mealy. It is distinguished from the bilberry only by the number of chives in the flowers, those of the Uva Ursa have ten in each, those of the bilberry have only eight; and the berries of the Uva Ursa hath five seeds only, the bilberry hath frequently twenty.

Half a dram of the powdered leaves, given every day, or every other day, is often useful in calculous disorders. Sometimes it affords no relief, but rather aggravates the symptoms. Perhaps its effects are no other than those of other vegetable astringents, some of which have long been used in gravelly complaints with great advantage.

Flores, Flowers of,

BALAUSTIORUM, Balaustines. They are the flowers of the *Malus Punica sylvestris major*, the greater wild pomegranate, as the *Cytini* are of the *Malus Punica sativa*, the cultivated pomegranate. They are very rough upon the palate, and much astringe; and are therefore used in many compositions of that intention. They are very serviceable in diarrhœas, and for such cases are frequently used in strengthening glysters.

ROSARUM

ROSARUM RUBRARUM, Red-Roses. *Rosa germinibus ovatis pedunculisque hispida, caule petiolisque trispido, aculeatis.* Linn. The buds only before they are quite blown are used in the shops, unless for the distilled water, and the *Mel Rosarum*, because then they are much rougher and more astringent. The conserve made of them is deservedly in great esteem; but the common notion of its being the better for age, is an error: for their astringency very much decays by long lying in the sugar. They are good in almost all distempers of the lungs; and particularly in defluxions of rheum, and spitting of blood. A very strong tincture of them greatly helps the efficacy of the bark in intermitting cases; and is an excellent pleasant julep. The conserve is judged useful in inflammations of the eyes, applied outwardly.

Fruetus, Fruits of,

BERBERIS, Barberries. The tree or bush producing these, was the *Oxyacanta* of the ancients, and particularly of Galen. It is the *Berberis pedunculis racemosis, spinis triplicibus, floribus luteis.* Linn. They are fit to gather about autumn; and are of a delightful, cooling, astringent taste. They are chiefly used in conserve; they very agreeably quench thirst, and fortify the stomach; and are good in diarrhœas and dysenteries.

CASTANÆ, Chestnuts. The tree producing these is sufficiently known. They are accounted astringent, particularly the outer skin; but the present practice takes no notice of them.

CYDONIORUM, Quinces, also called *Mala Cotonia* by Gerhard,

the Bauhines, and others. *Pyrus fol. integerrimis, floribus solitariis.* Linn. This is a very delicious fruit, which ripens at the latter end of the summer. They are a very rough astringent, eaten raw. They mightily cool and strengthen the stomach; remove nauseousness, and stop fluxes of the belly. For these purposes they are much in use, especially their juice made into a syrup, which is both very pleasant, and agreeably astringing. The juice will keep a whole year very good, with oil upon it, in the manner that wine is kept in flasks: and it is much better to preserve it so, and make the syrup often; for all astringents rot or mellow by lying long in sugar; so as to lose their efficacy. Etmuller, after his usual way of talking, ascribes the astringency of this fruit to an acid austere salt, with which it abounds. Some of the ancients accounted it an antidote for some particular poisonous qualities in hellebore. The seeds, bruised well in an aqueous liquor, afford a good mucilage, which is excellent in sorenesses of the mouth; and answers likewise all the intentions of the preceding class.

GALLÆ, Galls. These are the production of the *Quercus Gallum ferens*, the gall-oak, which grows in Hungary, and some parts of Italy. They are a kind of excrementitious tubercles, in which are hatched particular insects. They are powerfully astringent, whether used internally or externally.

GLANDES, Acorns. These are pretty much of the same kind and quality as the galls. Some will have them to be strong carminatives, and grate them into warm liquors, like ginger and other spices to expel wind.

GRANATORUM, Pomegranates, called by many botanists the *Malus Punica*, or Carthaginian apple. It is the fruit of the *Punica sylvestris Italica, foliis lanceolatis, caule arboreo*. Linn. Its different parts are differently denominated, as the flowers *Cytini*, and the peel *Malicorium*. This is a delightful fruit; not much differing in its medicinal virtues from quinces. The juice is prescribed in weaknesses of the stomach and bowels; and removes nauseousness, vomiting, and fluxes.

MESPILI, Medlars. These are the fruit of a tree (*Mespilus Germanica*. Linn.) cultivated in some gardens, though little used in medicine; but in diet they are a grateful fruit, though not eatable till rotten.

MORI, Mulberries. *Morus foliis cordatis scabris, fructu nigro*. Linn. These are the fruit of a well known tree, and are grateful, cooling, and astringent. They are used only in a syrup, which is very pleasant, and makes a mighty good gargarism, with a simple cooling water; for which it is most in use.

MYRTI BACCÆ, Myrtle-berries. These are the fruit of the common Italian myrtle, and they are very rough and astringent. They are not much in composition for inward use; but they enter several of the strengthening plasters. The syrup is esteemed good against abortion; and is used in fluxes of all kinds.

MYRTILLI, Hurtle-berries. These are of different kinds; but the *Vitis Idæa foliis oblongis crenatis fructu nigricante* of C. and *Idæa fructu nigro* of J. B. and the *Vaccinium Myrtillus*. Linn. is the sort referred to here; which are called also *Vaccinia*, black whortles. They

grow in stoney grounds, and are cooling and astringent; but little used in modern pharmacy.

PRUNELLORUM SYLVEST. Sloes. *Prunus sylvestris spinosa fol. lanceolatis pedunculis solitariis*. Linn. These are the fruit of a particular thorn-tree, which is the same as the *Acacia Germanica*; the inspissated juice whereof is sometimes sold for the true Egyptian *Acacia*. We have in the shops a conserve made with them; which with care is a very good one. For this purpose they are to be gathered before they begin to wither and mellow upon the trees; for after they are frost-bit, as the country-people call it, and made fit for eating, they are not so rough; and consequently not so suitable for this intention in medicine.

RUBI IDÆI, Raspberries, are the fruit of a particular bramble, differing not much from the *Rubus vulgaris fructu nigro*, the blackberry, unless in colour. *Rubus fol. quinato pinnatis ternatisque, caule aculeato, petiolis canaliculatis, fructu rubro*. Linn. These ripen about June. They are much like the mulberries for their medicinal virtues; but somewhat rougher, and of a more fragrant flavour. They are used chiefly in syrup, which is likewise much prescribed in gargarisms; and is reckoned good against vomitings, and looseness of the belly.

SORBI, Services, are the fruit of a tree cultivated in the gardens, and distinguished *Sorbus fativa, vel legitima*, in opposition to the *Cretago*, or *Sorbus torminalis* of Theophrastus and Pliny; characterized by—*Apri folio sylvestris non spinosa*, the wild service-tree. It is the *Sorbus Domestica*, of Linn. These are much of the same kind as medlars, and

and as little known in medicine; though as much valued in diet for the same qualities.

Succi inspissati, Juices;

ACACIÆ, Thorn-Tree. There are three kinds of this mentioned by botanic writers; one is from the *Prunus sylvestris*, or *Acacia Germanica*, which is the floe-tree, or black-thorn: another is from the *Cytisus spinosus*, or *Acacia trifolia*, trefoil acacia; but the last and true sort for medicinal uses, is from the *Spina Egyptiaca* distinguished by Herman in his catalogue of the Leyden garden---*foliis scorpoides leguminosæ, siliquis albiis compressis, Isthmo interceptis, floribus luteis*; which is the Mirqueth of Hernandez, the Egyptian thorn. *Mimosa Egyptiaca, spinis stipularibus patentibus fol. bipinnatis partialibus extimis glandula interstinctis, flore luteo, spicis globosis pedunculatis*. Linn. The inspissated juice of the unripe fruit of this tree is brought to us from Egypt, in roundish masses, wrapt up in thin bladders. It is outwardly of a deep brown colour inclining to black; inwardly of a reddish or yellowish brown; of a firm consistence, but not very dry. It soon softens in the mouth, and discovers a rough, not disagreeable taste, which is followed by a sweetish relish.

This juice entirely dissolves in water; but is scarce sensibly acted on by rectified spirit.

It is a mild astringent. The Egyptians give it in spitting of blood, to a dram, in any convenient liquor. With us it is rarely found; what is usually sold for it, is, the inspissated juice of unripe flocs, which is harder, heavier, of a darker colour, and a somewhat sharper taste.

HYPOCISTIDIS, is the inspissated juice of a tree, or shrub, called also *Orobanche*, the holly-rose. It is divided into male and female, the former of which only is the *Cistus Hypocistidem ferens*, and distinguished---*Maç folio oblongo incano* by Casp. Bauhine. *Asarum Hypocistis*. Linn. Dioscorides gives a very particular description of this shrub, too long to insert here. The officinal juice is blackish, and shines like the best Spanish juice of liquorice. It is reckoned more powerful in its astringent quality than the foregoing. But it is used in few officinal compositions; and never in extemporaneous prescriptions.

Cortices, Barks of,

CINNAMOMI, Cinnamon, is the bark of a tree called *Canella Zeilaniaca* by Caspar Bauhine; *Laurus Zeilaniaca Baccis caliculatis Hermannii* by Ray, and is the *Curdo* of Piso. *Laurus fol. triperwis ovato oblongis, nervis versus apicem evanescentibus floribus parvis albis*. Linn. This, as was observed before, under the Cassia bark, was by the ancients confounded with that: but it is of a much more aromatic flavour and taste, and is rough upon the palate when chewed; whereas the other is quite slimy. This is not only an admirable astringent, and a great strengthener of the stomach and bowels, but also a good cephalic. There are no kind of defluxions or weaknesses but what it is of service in. It affords an oil which will sink in water, and is of great esteem, and much prescribed in extemporaneous practice. But its dearth subjects it very much to adulteration; which is generally done with a mixture of oil of cloves or clove-bark;

which are also specifically heavier than water. The best way to know its goodness is by diluting it; which may be done by dropping it upon sugar, and then dissolving it in small spirit. For before it is so managed, its extraordinary heat upon the tongue will not suffer one to discern its true taste; but when it is thus diluted, it easily discovers any foreign mixture. This oil has of late been made genuine in England, from the common cinnamon of the shops; so as to far exceed that usually brought hither from Holland.

GRANATORUM, Pomegranates, called also *Malicorium*. This is reckoned much more astringent than the juice, already taken notice of. It is therefore much ordered in decoctions against gonorrhœas, and fluxes; and often in astringent glysters.

QUERCUS, Oak. *Quercus foliis deciduis oblongis superne latioribus, sinubus acutioribus, angulis obtusis*. Linn. This has not a place any where in the Dispensatories that I know of; yet it is a powerful astringent. From its great astringency, and its affinity, upon that account, with the Peruvian bark, some imagine it will prevail against intermittents; but there do not appear any instance of trial to support such a conjecture.

SIMAROUBA. It is thought to be the bark of the *Pissachia Terebinthus*. Linn. It is brought from Guiana, in long tough pieces, of a pale yellowish colour, and a pretty strong bitter taste. It is used in dysenteric fluxes; a decoction of half a dram is given for a dose, and repeated at intervals of three or four hours.

Radices, Roots of,

BISTORTÆ, Bistort, or Snake-weed, distinguished---*Major rugosioribus foliis*, by J. and---*Radice minus intortâ*, by C. B. *Polygonum caule simplicissimo monostachio, foliis ovatis in petiolum decurrentibus*. Linn. This grows in several parts of England, in low grounds. Its root only is of use. It is one of the strongest of the vegetable astringents; and therefore used against all kinds of fluxes, where astringency is the only indication. It is best in decoction. It is accounted good against vomiting, spitting of blood, and all hæmorrhages. It passes with some also for an alexipharmic, and is reckoned to promote sweat; for which reason it is, that we sometimes find it in compositions and prescriptions of that intention. Of this root in powder the dose is to a dram.

COLUMBOE. This root is thus named from the town of that name in Ceylon, whence the Dutch supply the world with it. It is brought to us in circular pieces, from half an inch to three inches in diameter, and divided into frusta, which measure in length from two inches to a quarter. The sides are covered with a thick corrugated bark, of a dark brown colour, on its external coat, but internally of a light yellow colour. The root seems to consist of three lamina; viz. the cortical, the ligneous, and the medullary. A number of small fibres run longitudinally through it, and appear on the surface. The thicker pieces have holes bored through them, for the convenience of drying. It hath an aromatic smell, but is disagreeably bitter, and slightly pungent to the taste, somewhat resembling mustard-seed; when

when it hath lost, by long keeping, part of its essential oil.

It gives out its virtue by cold as well as by hot maceration. Rectified spirit of wine extracts its virtues most perfectly; brandy or wine do the same in a very useful degree; and even water for present use obtains a good degree of its medicinal parts. An ounce of the root may be infused in a pint of any proper menstruum; and from one dram to six may be given for a dose, and repeated according to the intention of giving it. Of the powder, the dose is from three grains to a dram or more.

Bitters generally have a degree of astringency, and this root shares of this quality in a small degree. It is not heating, so may be given in hectic habits, in purgings, vomitings, dysenteries, bilious fevers, disorders from indigestion, and flatulency, and where an aversion to the Peruvian bark renders the taking of it difficult, it is a good substitute for it. In these and many other complaints, after due evacuations, this root is eminently serviceable.

TORMENTILLÆ, Tormentil,---
Sylvestris C. B. *Tormentilla caule*

erectiusculo foliis sessilibus. Linn. It grows in pasture grounds, and flowers in June. The root only of this plant is used in medicine. This is ranked amongst the alexipharmics likewise; and is of great esteem in malignant cases, attended with any flux, either of the bowels, or the womb; all which it is reckoned to restrain. Schroder says there is not a better vegetable grows than this, for all such intentions. It agrees mighty well with the white drink, and changes its colour to a very agreeable red; and much increases its efficacy in checking a looseness in the measles, small-pox, or fevers.

OSMUNDÆ REGALIS, Osmund Royal, of Linnæus, is a species of the fern, and distinguished by C. B. *Filix florida, ramosa, non dentata*; it is to be met with in marshes. The root is the only part of it used in medicine. It is most in esteem for restraining the whites in women, and strengthening the womb. Some esteem it very powerful in dispersing bruised blood, and taking away the blackness that arises therefrom: and Mynsicht made it the basis of a cataplasm for such purposes.

Class 3. Of Absorbents.

Ligna, Woods:

BUXI, Box. *Buxus major arborescens.* Linn. It is not much used in medicine, although a chemical oil is directed from it: and some say, boiled in decoctions, it is as efficacious against the venereal disease as guaiacum.

SANTALORUM omnium, all the Saunders. *Santalum.* Linn. There are three sorts in the shops; the citrine or yellow, the white, and

the red; though many think the two first to be of the same tree; the white being the cortical part, and the yellow the middle. They are warm and drying; and by that means take their place in this class.

LENTISCI, Mastich-Tree. *Pistachia Lentiscus.* Linn. Bellonius, in his Observations, lib. ii. cap. 8. affirms this plant to afford the Gum-mastich, found no where but in the island of Chios; but Schroder con-

tradicts it, and says that he had a present of a large piece of it very replete with that gum, from his kinsman Johannes Glaserus, a skilful apothecary, which he brought himself from a mountain in Helvetia. It is much of the same virtues as the saunders, and prescribed in the like cases; but as it approacheth somewhat nearer to the turpentine kind, it is rather more detergent, and passes in some measure by urine. A decoction of the wood is recommended in catarrhs, nausea, and weakness of the stomach.

GUAIACI, Holy-wood, or Pockwood; *Guaiacum offic. vel Guaiacum Jamaicense, foliis bijugis obtusis, flore cœruleo, fructu subrotundo*. Linn. This is the wood of a tree that grows very tall in the West Indies. That which is heaviest is best. It is very hot and drying, and therefore a great promoter of perspiration, and perhaps the most certain diaphoretic hitherto known. Upon this account, it is reckoned a wonderful sweetener and cleanser of the blood; and therefore much prescribed in cutaneous foulnesses of all kinds. By the same hot penetrating quality, it is likewise esteemed good in the gout, by dissipating and insensibly wasting the humours thrown upon the joints; as also in dropsies and catarrhs, by drying up and wasting the superfluous humidities. But in venereal cases it is said to do wonders; upon which account it has obtained its name of Pockwood.

It is not, nevertheless, capable of itself of absolutely curing the venereal disease without the assistance of mercury; though it greatly palliates the symptoms, especially in hot countries; but joined to mercury, the same is

thereby determined to the skin, and thence rendered capable of eradicating cutaneous poxes, which resist salivations, and all other methods hitherto known. In these cases, the decoction or extract should be used, and given continually with such a proportion of mercury, as may be retained in the habit, without forcing its passage through the intestinal or salivary glands, to which the guaiacum, if the patient be kept warm, will contribute much to hinder. To have its full virtues by decoction, it should either be fresh, or very long boiled.

SASSAFRAS. It is the wood of a large tree, which grows in Florida, Virginia, &c. It is the *Laurus Sassafras, vel Laurus fol. integris trilobisque, floribus flavis, bacis cœruleis*. Linn. It is of an aromatic scent: some compare it to fennel. It is very drying and hot, though not quite so much as the guaiacum. It is used in all the same intentions, and is much more met with in extemporaneous prescriptions than in the shop medicines; this is somewhat come into fashion in families, by way of tea, which the shavings of it make agreeably enough; but the scandal of its being good in venereal cases, is a great detriment to its credit; which prevents a great deal more good being done by it, than otherwise might be; for it is certainly (in the sense we have explained the term at the head of the section) an admirable sweetener. Though with some indeed it does not well agree, as first, especially, and in a morning; as it effects the head like some perfumes, and occasions pains, drowsiness and vapours; but use and first drinking it in afternoons, will
with

with most constitutions wear off these inconveniencies.

The bark of GUAIACUM, is so much of the same virtue with the wood, as to need no particular account. They are given promiscuously in the same intentions.

The bark of SASSAFRAS is much stronger in virtue than the wood.

Radices, Roots of,

CHINÆ, China. *Smilax China*. Linn. This root comes from the country whose name it bears; it is also brought from New Spain, and most of it from Peru; which is the true official sort; and distinguished by *Occidentalis*, in opposition to the former, called---*Orientalis*: the best is white within, light, and mealy. It is drying and promotes perspiration; in many instances, where ancient authors speak of these things being diaphoretic, they can be understood only of insensible perspiration; for the largest doses will not procure any visible effect. It is reckoned likewise discutient, aperient, and hepatic; it is certainly good in all nervous cases which proceed from too much humidity, and may deserve to be recommended, as it much is in the gout, and some kinds of the palsy. It comes in for an anti-venereal upon the same foot as some of the fore-mentioned woods. The great Vesalius wrote a treatise concerning it. Brasavolus says a great deal concerning its virtues, in his treatise *de Morbo Gallico*.

SARSAPARILLÆ, Sarfa, or Sarfaparil. *Smilax Virginiana bederæfolia, foliis inermibus ovatis retusis mucro natis trinerviis*. Linn. This root is brought from the Spanish West Indies. It consists of a great number of long strings hanging from one head; the long roots

(the only part made use of) are about the thickness of a goose quill, or thicker, flexible, composed of fibres running their whole length, so that they may be stript into pieces from one end to the other: they have a glutinous, bitterish, not ungrateful taste; and no smell. That is most in esteem, which is whitest within, and lightest: but not so dry as to run into powder. It is accounted absorbent, and a great sweetener, and much in use with some for a kind of tea. Some much question whether there be really any medicinal virtues in this root, because it discovers little in taste, smell, or tincture; and suspect it to have got into esteem only as many other things have done of very little worth, by their bearing a good price, and being brought a great way. It is but in few of the shop compositions; though much found in extemporaneous prescriptions; a decoction of this, after a patient has been salivated, or after taking a good deal of mercury without a salivation, seldom fails of totally eradicating the venereal disease.

Of Animals.

Class I.

RASURA C. C. Shavings of Hartshorn. This is much in esteem amongst family doctoressees; and in the shops too upon many accounts; but what most gives it a title to this place, is that jelly which it is easily boiled into in common water, and is accounted very nourishing and strengthening. Those who make it a trade to rasp it for use, have learned the art of mixing bones with it, to raise their profit; insomuch that it is hard to buy any now in the shops

shops that has not a dash of it. The same cheat is put upon us frequently in the burned hartshorn, with which they mix several sorts of bone. But as for that, which is the commonly suspected fraud, of drawing the spirit from them before they are burnt, and so divesting them of their better part, they are not at all the worse, were it so: for if they are put fresh into the potmaker's kiln, where they are generally calcined, the spirit is as much forced away, as in the chemical furnace.

RASURA EBORIS, Shavings of Ivory. This is much of the same nature as the former, and boils in the same manner into a jelly.

Class 2.

OCULI CANCRORUM, Crabs-eyes. These are a stoney concretion in the head, or rather, the stomach of the craw-fish, and not the eye of the creature. They are much used both in the shop-medicines, and extemporaneous prescriptions. They are absorbent, drying, and correctors of acids. If counterfeit, they want the laminated texture which is seen on breaking the genuine sort, or by their not at all or wholly dissolving in acid liquors. The true sort retain their shape, though they soften in acids, their earthy part only dissolving.

CHELÆ CANCRORUM, Crabs-claws. They are of the same virtue as the former. They have the greatest share in the composition under the name of Gascoign's powder: which in the shops has the title from them of *Pulvis è chelis compositus*. So far of the tip of the claw as looks black is used; the rest is thrown away.

MARGARITÆ, Pearls. These

are brought from several parts, but the oriental are reckoned the best; and of them, those which come from Persia. They are the produce of many oysters, muscles, and such like shell-fish. They are only morbid excrescences from the shells, and have no other qualities than the shell in which they are generated. They are very different in shape and bulk. The whitest and most glittering are most in esteem. So far as they are manifestly absorbent, and destroyers of acidities, we are justifiable in ranking them in this place.

Of Minerals.

Class 1.

LAPIS HÆMATITES, Blood-stone. This is found in many places in Germany, and in great plenty in England. It is a very heavy, reddish iron ore. It is astringent; and generally given in substance reduced to a fine powder. It is reckoned good in all hæmorrhages; and but little used in any other cases. The *Heliotropium*, also called Blood-stone, and recommended for the same purposes, seems very different, and is of a dusky green, streaked with red veins; and this latter sort only seems to have been the true Blood-stone of the ancients, concerning which such strange things have been alleged.

ALUMEN, Alum. Some authors mention several sorts; but the *Alumen Rupeum*, or Roch-alum, is made of an alum mineral mixed with urine and kali. It is extremely rough and astringent; as every one finds who tastes it. It is apt to provoke vomiting, by vellicating the fibres of the stomach; upon which account it is
not

not much used inwardly; and then not without some smooth aromatic ingredients in composition with it. I had it from a very worthy person, that he had removed a great many agues, with a large nutmeg, and its equal weight of alum powdered and divided into three doses, giving one every morning fasting; and that it never failed; but upon some trials I have been disappointed; although it has answered in many instances; mostly, I have observed, in strong tough constitutions: for it is offensive to the stomach at first taking. It is likewise used outwardly in some astringent lotions, and enters into some compositions as a very good dentrifice, and a preserver of the gums.

Class 2.

CRETA, Chalk. The fine soft chalk is the purest of the mineral earths which are used for absorbing redundant acid in the human stomach, and is in general to be preferred. See earths capable of absorbing acids. Its most experienced virtue is, in removing that uneasiness at the stomach, which is commonly called the heart-burn. Some commend it in drying of old ulcers; but that does not seem to be a very rational practice.

BOLUS ARMENA, Armenian Bole. This is a natural earth, and brought chiefly from Armenia, but the French is as good. That which is of a palish red, soft, and fattish to the palate, and strongly adheres to the tongue, is the best. It is very much adulterated in the shops; it is somewhat astringent, and often prescribed for diarrhoeas, dysenteries, hæmorrhages, catarrhs, and all kinds of defluxions. The boles contain, besides the tena-

cious indissoluble earth, which is their principal characteristic, 1. a portion of an earth soluble in acids; 2. of acid, separable by distillation in a strong fire; this acid is of the same nature with that obtained from vitriol, sulphur, and alum; 3. the coloured bolar and ochrous earths contain also a small portion of iron, which is reducible by inflammable fluxes into its metallic form: in consequence of these first ingredients, these earths may be considered in some measure as absorbents; the acid appears to be united with a part of the absorbent earth, into a saline compound approaching to an aluminous nature; whence they have some degree of astringency: the iron is in too small a quantity to be useful as a medicine.

TERRA JAPONICA, Japan Earth. It is also called *Catechu*. It is an inspissated juice; and not an earth, as is manifest from several considerations, but from none more than its dissolving in water, and passing with it through a filtre, which an earth will not do. It is supposed to be the inspissated juice of the fruit of the *Areca* palm-tree. By Japan earth, our apothecaries commonly understand the plain extract, or juice; and by *Catechu*, the same aromatized with musk, ambergris, and the like. It is of a dark purple colour, very austere upon the palate, seems to melt, like the bole, in the mouth, and leaves somewhat of a sweetish taste behind it. When pure, it dissolves totally in water, and almost totally in sp. vini R. It is a mild astringent, and as such is frequently used against alvine fluxes, uterine profluvia, laxity of the viscera in general, and in coughs from thin acrid defluxions.

TER-

TERRA LEMNIA, Earth of Lemnos. *Amatus Lusitanus* con-founds this with the Armenian Bole.

TERRASAMINA, Earth of Samos.

TERRA SIGILLATA, Sealed Earth. These are very much alike in their medicinal virtues, and are used in the same intention of drying and astringing; but are neither of them so good as the two former.

LAPIS GRANATE, Granates.

RUBINUS, Ruby.

SMARAGDUS, Emerald.

HYACINTHUS, Jacinth.

SAPPHIRUS, Sapphire.

These are called the greater pre-cious stones. They are not re-ducible into a powder fit for use without long levigation; and in the grinding they will necessarily wear off so much, even of the hardest marble, as to increase their weights sometimes to double the quantity; whereby the levigating materials frequently make a con-siderable part of the medicine. And if it was not for this inconve-nience, it is not easy to imagine what the animal digestion can draw out from such hard bodies: these seem to have got a place in medicine pretty much in the same manner as gold, and some other things which are very dear, more to countenance an extravagant price of a composition, than to contri-bute any real efficacy thereto.

CORALLIUM RUBRUM, Red Coral. There are also corals of other colours; but this is chiefly used in the shops. Corals are ani-mal productions. Linnæus ranks them amongst the species of Hel-mintholithus, or petrified worms, as the honey-comb is the produce of bees, so the various corals are

the produce of different polypes in the sea. The brighter and higher the colour, the better it is account-ed. We have it from many parts of the Mediterranean; and Naples is a great market for it. This also, by its extraordinary hardness, car-ries along with it some part of the levigating stones. It can only be considered as an absorbent; and is frequently prescribed to correct the acidities in the stomachs of young children; by which means it very probably has obtained the reputa-tion of being good against fits; and easing the pain in cutting the teeth. For the convulsions which children are subject to, may have nothing else for their cause but those vellicating juices in their sto-machs and bowels. Kircher, in his *Mundus Subterraneus*, is very copious in his account of this drug; and Gransius has wrote professedly de *Coralliis*.

LAPIS LAZULI. This has been improperly reckoned an astringent; it owes its colour to copper, and sometimes proves emetic and pur-gative.

LAPIS CALAMINARIS, Calamine. This fossil is found in many places, and is the ore of zinc. It is used as a great dryer, and absorbent in outward applications; it is scarce at all used inwardly. It is employed in cerates and pla-sters, as an incarner and cleanser of ulcers; as also in collyriums, against inflammations of the eyes.

TUTIE, Tutty. A calx, or sublimate of zinc, produced in the furnaces where zinc is fused with copper. It is extremely hard, and loses nothing in levigation. Its use is chiefly as the former, in lo-tions for inflamed eyes; and little else

S E C T. III.

Of Stomachics.

IT is not at all difficult to apprehend the operations of those things which come under this denomination. All nervous medicines indeed have some claim to this division; as whatsoever is good for the nerves cannot but be serviceable to the stomach; both upon account of its being such a nervous part, and as it has generally the first effects of such medicines. But as for superior reasons, they are distributed under other denominations, we shall rank under this only such simples as are either seldom used in other intentions, or hardly ever omitted in this. These are such as, by a peculiar warmth, give both a grateful sensation, and a suitable tenacity to the fibrous coats of the stomach; whereby the sense of hunger is not only excited, but also the stomach rendered more able to break and digest what is taken in to nourish the body. And as most bitters are of this tribe, and also as by that quality they contribute frequently to the destroying of worms, we have likewise given some simples, prescribed scarce for any other purposes, a place here.

Folia, Leaves of,

ABSENTHII ROMANI, Roman Wormwood. *Abseuthium Ponticum tenuifolium incanum*, C. B. It is cultivated in gardens, and flowers in July. It is not by much so bitter as the common wormwood; but is a more grateful stomachic. But that called and used for Roman Wormwood in the shops, is

the *Abseuthium marinum album* Gerard. *Artemisia absinthium marina fil. multipartitis tomentosis, racemis cernuis flosculis fœminæis ternis.* Linn. and differs considerably from the Roman Wormwood, which is of the nature of common wormwood, but more grateful and milder; whereas the sea-wormwood has a somewhat saltish taste, and is much less bitter than the other; on which account it seems to be chosen; though the true Roman wormwood is supposed to be much the better medicine. A conserve made of it is much used in the shops. And in extemporaneous prescriptions, for weakness of the stomach, loss of appetite, and bad digestion, it is hardly ever omitted.

ACANTHI, Bear's Breech, or *Branca Ursina*, Brank Urlin; *Acanthus Mollis*. Linn. Its leaves are of a shining dark green colour, about twelve inches long and three or four broad; elegantly and deeply cut in several parts: which occasioned the ancients to take the pattern of their foliage-work about the capitals of their pillars from them. It is cultivated with us in England; but grows native in Italy, Spain, and the south parts of France. It flowers in July and August. The herb-women commonly sell the leaves of bear's-foot, *Sphondylium*, or cow-parsnip, for this. The whole plant has a soft sweetish taste, and abounds with a mucilaginous juice: its virtues the same as those of Althea.

CARDUI BENEDICTI, Carduus, or Blessed Thistle, is the *Cni us Sylvestris*

Sylvestris hirsutior of C. B. *Centaurea calycibus duplicato spinosis lanatis involucreatis, foliis semi decurrentibus denticulato spinosis.* Linn. This officinal sort flowers in June and July. A strong decoction of this herb will vomit, and is often used for that purpose; but in composition with other stomachics, and drank not in too large quantities, it has no such effect; and is a very good ingredient. The disagreeable bitter in this plant is much abated by drying and long keeping: water in a little time extracts, without heat, the more agreeable part of the bitter, but if they stand long together, the disagreeable part is also taken up. A light infusion of this herb in water is peculiarly beneficial when the appetite is lost by irregularities.

CENTAUURII MINORIS, the Lesser Centaury; distinguished, --- *minus flore purpureo*, by John Bauhine; and --- *minus rubrum* in the Oxford catalogue. *Gentiana corollis quinquesfidis infundibuli formibus, caule dichotomo.* Linn. It grows in dry pasture grounds, and flowers in July and August. It is an excellent bitter, and very serviceable to the stomach in all compositions of that kind; and is good by itself in decoction; or infusion, which is best made in wine, or small gentian water. It wonderfully dissolves and absterges viscid humours, apt to abound in the first passages; the discharge of which it promotes by stool and urine; and in the glands of the extremities, and near the surface, it attenuates such humours, so as to fit them for perspiration. It is also very good, as indeed all bitters are, against worms. Some extol it very much for its alexipharmic virtues. It is also much used in discutient fomentations.

CAROLLINA. This is the *Muscus Marinus*, Sea-moss of Dioscorides. It is hardly used in any other intention in medicine, than as a vermifuge, for which purpose it is much commended, but I believe without reason.

SEMINA SANTONICA, Worm-feed. This is the seed of a wormwood brought chiefly from Alexandria in Egypt, entitled, *Abinthium Santonicum Alexandrinum*, C. B. *Artemisia Santonicum*, Linn. They are hot, bitter, and drying; and are prescribed scarce in any case but against worms; which experience shews they are effectual in destroying.

Cortices, Barks of,

AURANTIORUM, Oranges.

CITREORUM, Citrons.

LIMONUM, Lemons.

These are much of the same kind. The fruits, of which the peels are used in this intention, are too well known to want any description. They are very agreeable, bitter aromatics, which are always good to repair and strengthen the stomach. These give also a very grateful flavour to any infusions or tinctures, into whose compositions they enter.

The *Aurantia Curaflavensia*, Curassao Oranges, are the small young fruit of the Seville Orange-tree dried. They are moderately warm bitterish aromatics, of an agreeable flavour, and like the peel of the maturer oranges are well adapted for stomach tinctures, &c.

RADIX GENTIANÆ, Gentian Root. *Gentiana corollis subquinquesfidis rotatis verticillatis, calycibus spatibaccis.* Linn. No part of the plant besides is used in medicine; and the root, Schroder tells us, should be taken up in August and September.

September. It is extremely bitter; but leaves rather an agreeable, than nauseous gust behind. It deservedly stands at the head of the stomachic class; as it wonderfully warms the stomach, and excites the appetite; and also as it enables it the better to digest what it receives. For killing and expelling worms it is in the best esteem: and in chirurgery it not only goes for a discutient in fomentations, but is also used in fine powder to issues, to promote their running; and as a tent, both to enlarge and cleanse some fistulous apertures. Some authors extol this, beyond all credibility, for its alexipharmic qualities; and rank it almost with the Peruvian Bark in intermittents.

And for this reason, undoubtedly, we meet with it, not only in the *Theriaca Andromachi*, but in some other shop-compositions of the same intentions; although it now ceases to be prescribed for such purposes in extemporaneous practice. That it very much assists in some compositions for removing agues, and some kind of intermittents, I have found by experience in many instances; but it is not to be depended upon alone: and by its great subtilty and heat, if caution be not used, it will inflame in many cases rather than abate the symptoms. With this only, and the outer rind of orange-peels, may be made a very good bitter, in any proper menitruum.

S E C T. IV.

Of Balsamics.

WHAT passes under this denomination, has a great share in the *Materia Medica*. But the term is so general and lax, that we have brought this tribe into four subdivisions.

Under Balsamics seem to be comprehended all that is meant by softening, restoring, healing, and cleansing: to all which intentions there seems this necessary requisite, in the parts of all bodies which are used therein, viz. that they be soft, yielding, adhesive, and by their smallness have a ready disposition to motion. It is not difficult to foresee how many ends are to be answered by a medicine with all these properties; as likewise what a vast progress they must take in many instances, before they can

arrive at the intended scene of action.

For in these intentions, the seat of the complaint is most commonly in the viscera. Now it is certain a medicine cannot come at any of these, but by the common conveyance of the blood: and how long from its being taken into the stomach, it must be, before it can be prepared for, and goes its circuit that way, every one knows, who is but indifferently acquainted with the animal œconomy. And therefore, though the lungs are by their situation so near the stomach, yet it must be many hours before a medicine can arrive at them, after it is taken in by the stomach; because it must pass the usual course into the lacteals, thro'

all

all the meanders of the mesentery, and go up with the chyle into the subclavian vein, and there fall into the blood before they can come near the place it is intended for: and even then it is but the chance of coming thither in such a quantity as bears a proportion to the whole which comes into the blood, equal to that which the pulmonary artery bears to all the other arteries, into which the heart throws the blood in every pulsation.

But as to any particular subdivision of this general term, a medicine given inwardly must pass thro'

considerable alterations before it can answer its end, even in the stomach and bowels; and therefore nothing of this kind can be depended upon in a single or few doses; but must be followed and repeated until the animal juices are sufficiently charged therewith to afford a continual supply, whether to any particular part, or to the whole. We shall the better understand the operations of these medicines from proper explanations under the several branches we have divided them into.

Class I. Of Emollients.

EMOLLIENTS are such things as sheathe and soften the asperity of the humours, and relax and supple the solids at the same time: it is very easy to conceive how both these are brought about by the same medicine.

By what means soever, whether in the stomach or any other parts, the juices have obtained a sharpness and asperity, so as to vellicate and render uneasy the fibres and nervous parts; which often happens; those things which are smooth, soft, and yielding, cannot but wrap up their points, and render them imperceptible; whence they may gradually, by the proper course of circulation, be brought to some convenient emunctory, without doing any injury by the way. Such parts likewise draw the fibres into spasms, keep them too tense, and frequently thereby occasion obstructions of the worst kind. In all such cases, emollients lubricate and moisten the fibres; so as to relax them into their proper dimensions, whereupon such disorders cease.

Folia, Herbs or Leaves of,

ALTHÆÆ, Marshmallows, called also Bismalva, and Ibiscus. *Althæa foliis simplicibus tomentosis*. Linn. It grows on marshy grounds, and flowers in July and August. This plant affords a very soft mucilaginous substance in decoction; which is therefore good in all complaints arising from acrimony. Thus it is of great service in dysenteries; where the mucus of the guts is abraded; and in many kinds of colics. It also greatly assists in obstructions of the reins and urinary passages, from sandy concretions; by lubricating the parts, and thereby making them yield better to the passage and expulsion of such matter. It is likewise good in stranguries, and heat of urine, and with some persons is a great secret in the gonorrhœa; insomuch that they pretend to make a cure with it alone, if there be no great aggravation of symptoms. It is much used in glysters, and sometimes in maturing cataplasms. Mr. Ray mentions it as pectoral; and

and it must certainly be of service in some tickling defluxions, and ease the coughs thence arising; as also in pleurifies.

BETÆ, Beets. These are distinguished into white, which is the *Cicla offic.* of C. B. the black, and red. *Beta vulgaris.* Linn. But they are very little used, unless in the kitchen. The juice or powder of the root taken up the nostrils, excites sneezing, and occasions a considerable discharge of mucus.

BETULÆ, the Birch tree. This is commonly enough known, a wine being made of its juice; Schroder says it cools, cleanses, and is good in all nephritic ailments: but modern practice takes no notice of it.

MALVÆ, Mallows: distinguished --- *vulgaris flore majore folio sinuato,* By J. B. *Malva caule erecto herbaceo, foliis septemlobatis acutis, pedunculis petiolisque pilosis.* Linn. It flowers in May, and continues so to do most part of the summer. It is of the nature of the former, but not reckoned quite so good. It is used very little either in shop-compositions, or extemporaneous prescription; unless among the good women, with whom it is esteemed for the gripes in children, and used frequently for that purpose in their food.

MERCURIALIS, Mercury; ealled also *Bonus Henricus,* and *Tota Bona.* *Chenopodium Bonus Henricus foliis triangulari sagittatis integerrimis, spicis compositis aphyllis axillaribus.* Linn. This is a species of the blite; it very gently relaxes the bowels, is softening, and somewhat deterfive, which makes it prescribed sometimes in the jaundice, and obstructions of the viscera. It is likewise, as the former, used by the nurses in children's victuals, against costiveness and the gripes.

Mr. Ray says, its juice will wear away warts.

PARIETARIÆ; called also Helxine, Pellitory. *Parietaria foliis lanceolato ovatis, pedunculis dichotomis, calycibus diphyllis.* Linn. This grows much on old walls, and is therefore frequently called Pellitory of the wall. Its use is not very great either in shop-compositions or prescription; unless in glysters, and some external applications.

TAPSI BARBATI; called also *Verbascum,* Mullen; distinguished --- *Mas latifolium luteum* by C. B. *Verbascum foliis decurrentibus utrinque tomentosis, caule simplici.* Linn. It grows amongst rubbish, and in ditches; and flowers in July. It is said to soften tumours, cool inflammations, and ease pains; and is recommended in distempers of the breast, coughs, and spitting of blood.

Flores, Flowers of,

LAMIÆ, is the *Urtica Mortua,* Dead Nettle. *Lamum album foliis cordatis, acuminatis, serratis, pet. ovalis, verticillis viginti floris.* Linn. called also *Galleopsis,* and *Archangelica,* Archangel. The plant itself is in no great esteem; but the flowers, which blow about June, are chiefly in use. They are accounted not only soft and lubricating, but also strengthening; and are therefore given in some female weaknesses, as the whites; and in heat and difficulty of urine.

LILIORUM ALBORUM, White Lilies; distinguished --- *Flore erecta & vulgare,* by C. B. *Lilium fol. sparsis, corollis campanulatis; intus glabris.* Linn. These blow in July. They are now quite out of use in internal medicines; and therefore we shall refer them to the topics.

Semina, Seeds of,

FOENUGRÆCI, Fenugreek. *Trigonella Monspeliensis, foliis obovatis, leguminibus sessilibus strictis erectiusculis subfalcatis acuminatis, caule erecto*. Linn. These are very little used inwardly. They are very mucilaginous; and therefore soften, relax, and heal. They are much used in emollient glysters. Outwardly, they are in great esteem for ripening, discussing, and digesting tumours; and hardly ever omitted in cataplasms of those intentions. They are in the compositions also of many of the shop plasters and unguents for the same purposes.

LINI, Linseed, or Flax-seed. The plant is the *Linum catharticum capsulisque mucronatis, petalis crenatis, foliis lanceolatis alternis, caule subsolitario*. Linn. They are cooling, softening, and healing. They yield a fine smooth mucilage in decoction; which is wonderfully good in erosions from acrimony, in defluxions of rheum, catarrhs, and tickling coughs; as also in pleurifies, asthmas, and many distempers of the breast. The oil expressed from them cold, is now in great esteem; and very much in the common practice; not only in diseases of the lungs, but in some colics, obstructions of the urinary passages, and in all suspicions of inward-ulcerations. It gently relaxes the bowels in most constitutions. In glysters, and external remedies, it is used in all the intentions of the former.

CITRULLI, Citruls; *Anguria Citrullis dicta*, by C. B. *Cucumis Anguria*. Linn. This is one of greater cold seeds. Besides those properties for which they are given a place under this class, and for which they are in some of the

emollient compositions of the shops, they are also accounted aperient and diuretic; and prescribed often where choler and acrimony abound.

CUCUMBERIS, Cucumber. *Cucumis Sativus*. Linn. These are also amongst the greater cold seeds. They are not only cooling and emollient, but also reckoned absterfive; they are used amongst diuretics.

CUCURBITÆ, Cucurbits, or Gourd; distinguished---*Major sessilis, flore albo*, by C. B. *Cucurbita aspera*. Linn. See the next article.

MELONUM, Melons. *Cucumis Melo*. Linn. These are the two other of the greater cold seeds, and prescribed in the same intentions as the former. Mathiolus says, that the green leaves of the gourd applied to the breast of lying-in women, prevent too great an increase of milk. And Schroder commends them in external inflammations, and pains of the gout: and the melon seeds in thirst, stranguries, and heat of urine.

PEPONUM, Pompions. *Cucurbita Pepo*. Linn. These are a species of the former, but called Pompion, or common melon; in distinction from the other, generally termed musk-melon: and they are both of the gourd kind; these are of the same virtues as the former, but not so much in use.

SESAMI, the oily purging grain; distinguished—*Semine fuso & albo*, in Herman's catalogue. *Sesamum orientale*. Linn. The virtues of this are so variously told by botanists, that there is but little dependence upon them; and the present pharmacy makes little use of it. They abound with oil, but have no title to the appellation purging.

Fruſus, Fruits of,

AMYGDALARUM DULCIUM, Sweet Almonds. The fruit of the *Amygdalus fol. petiolatis, ferratis, petalis florum emarginatis*. Linn. Theſe are of a ſoft, ſweet, grateful taſte; and are cooling, healing, and nutrimental. They are much preſcribed in emulſions; and are good in all diſorders from cholerick and acrimonious humours. They cool and cleanſe the kidneys and urinary paſſages; and give eaſe in colic pains, and all irritations of the bowels. The oil expreſſed, which is ſo well known, and ſo frequently in uſe, is a ſafe and good remedy in nephritic pains, and may be given in large quantities; for it not only blunts and obtunds the ſharp points which irritate the membranes, but alſo relaxes and ſtretches the paſſages, ſo as very much to favour the expulſion of all ſuch matter. It is alſo in eſteem amongſt nurſes, for coſtivenefs and the gripes in children; inſomuch that many give a ſmall quantity of it as ſoon as the child is born. It is ſometimes uſed in glyſters: but oils of a coarſer fort are generally made to ſerve ſuch purpoſes.

AVELLANÆ, called alſo *Corylus*, the Hazel; *Corylus Sylveſtris*, C. B. the wood hazel. *Corylus Avellana*, Linn. Ancient botanic writers make a great many diſtinctions of this tree, and aſcribe many qualities to the different parts of the nut; but they are not worth recital here; for modern preſcription takes no notice unleſs of the ex-

preſſed oil, and of that but very little.

BALANUS MYREPSICA, Ben Nut. This is the *Βαλανος μυρεψική* of Dioſcorides; and the *Glans Unguentaria* of Mathiolus. It hath likewiſe many other appellations amongſt botanic writers, not worth notice here. The Italians draw an oil from this nut, which is brought to us by the name of Oil of Behen; but it is not uſed much in medicine. It is ſaid not to grow rancid with keeping; and therefore to be fit for perfumes, and other curious uſes.

CASTANÆ, Cheſnuts. *Fagus Caſtanea* of Linn. Theſe are not uſed medicinally, though much in food. They are not ſo ſmooth and emollient as the former, but have ſomewhat of a roughneſs and aſtringency in their compoſitions; which occasions a load at the ſtomach, and ſometimes a difficulty of breathing, if too many be eat of them at a time: but theſe inconveniences are prevented by roaſting them.

JUGLANDUM, Walnuts. *Juglans Regia* of Linn. Theſe are much of the nature of almonds; and good in all the ſame intentions; but are not near ſo often preſcribed: and the expreſſed oil, which is ſometimes ordered, is generally ſupplied with that of ſweet almonds; as one is always in readineſs, and the other ſeldom drawn. They will neither of them keep long, eſpecially in warm weather, without turning rancid: and therefore the new drawn is much the beſt.

Class 2. Of Restoratives.

These are not greatly different from those of the first class in the second section. And therefore their manner of operation may be accounted for much in the same way; only these are of a more subtle and adhesive nature, whereby they pass the finest strainers, or secretions, and enter into the nourishment of the remotest parts. All under this class are rather nutritive than medicinal; and are more administered to repair the wastes of the constitution, than to alter and rectify its disorders. Whatsoever can answer this end, must be both endued with a disposition to enter into, and mix with, the most subtle of the animal fluids, and to fall into, and adhere with, such interstices of the solids, as have been wore away by action, and stand in need of recruit.

Folia, Herbs of,

ADIANTHI ALBI, White Maiden-hair; called also *Ruta muraria*, and *Salvia vitæ*. *Asplenium Ruta muraria*. Linn. It grows in many places in England, chiefly on rocky ground. It is a small low plant; seldom rising above the height of two or three inches. Its stalks are whitish; and its leaves few, stiff, and roundish, resembling those of rue. It is used in decays of the lungs; and therefore enters much into the compositions of pectorals, both in the shops, and common prescription.

ADIANTHI NIGRI, Black Maiden-hair. This is called by Parkinson, — *nigrum vulgare*, common black maiden-hair; and distinguished by C. Baubine, — *Folius pulverulentis*, with dusty leaves; *Asplenium adiantum Nigrum*. Linn.

It grows about a span high; its stalks are slender, smooth, black, and beset with many firm, shining, green leaves, deeply notched, and sharp-pointed; the top ending like fern. It grows in shady lanes, and at the roots of trees. This is also used in the same intentions as the former.

ADIANTHUM VULGARE, seu *Capillus Veneris*; Maiden-hair: called by Parkinson --- *Verum*, five *Capillus Veneris verus*, the true Maiden-hair. *Adiantum Capillus Veneris*. Linn. This is brought from the southern parts of France; though it is said also to grow in Cornwall. As this is the true *Capillus Veneris*, it ought to be used in the syrup of maiden-hair; and wherever the true is ordered: but for want of it we generally use the *Trichomanes*. It easily gives out all its virtues to boiling water. It is useful in coughs, &c. which proceed from thin acrid juices; and assists the expectoration of tough phlegm. The best method of using it is by way of decoction, and to drink it freely.

ERUCÆ, Rocket; is described *Latifolia alba sativa Dioscoridis* in C. B. It is sown in gardens; but there is also a — *Sylvestris*, wild rocket, described *Major lutea, caule aspero*, and *tenuifolia, perennis, flore luteo*, by the Bauhines; but neither is much used, and the latter hardly at all.

PANICI, Panic, described --- *Germanicum, five Panicula minore*, by C. B. They sow it in the fields in some parts of Germany; and it is said to strengthen the bowels and cure fluxes; but our pharmacy takes no notice of it.

SCABIOSÆ, Scabious, described *pratensis*

Pratensis hirsuta, by C. B. This is mighty common in the fields, and flowers in July. It has a great character amongst Dispensatory writers; but seems to grow much out of use. It passes for a very good pectoral; and does great things in asthmas and pleurifies; and Etmuller gives it pre-eminence in inward abscesses. It has a place also amongst the alexipharmics. But hardly any thing is in greater esteem for all cutaneous foulnesses; upon which account, it is often met with in decoctions amongst such as are called sweetners.

TRICHOMANIS, English Maiden-hair, or Maidenhair of the shops. *Asplenium fundibus pinnatis; pinnis subrotundis crenatis*. Linn. Its root consists of small fibres, whence spring several long leaves, with a slender thinning black stalk. It grows in shady lanes, and on old stone buildings; and is in perfection about September or October. It is commonly used in the shops for the true *Capillus Veneris*, or Maiden-hair; as being to be had in greater plenty than that. It is accounted pectoral, restorative, and diuretic; and no bad substitute for the true *Capillus Veneris*.

TUSSILAGINIS, Colt's-foot, called also *Farfara*, is an herb very commonly known. It is the *Tussilago scapo imbricato uni flore, foliis subcordatis angulatis denticulatis*. Linn. It flowers early in the spring, before the leaves appear; which has occasioned some persons of conceit to call it *Filius ante Patrem*. It is by all received as an excellent pectoral; and enters many shop compositions of that intention; as well as frequently in extemporaneous prescription. It makes a decoction smooth and healing. But Dr. Fuller, in his *Medicina Gymnasica*, thinks such preparations of

it are not enough charged with the herb; and is for having the decoctions made with it boiled to the consistence almost of a syrup: which he commends for a wonderful restorative in wastings of the lungs, or consumptions. Lindanus valued it as a mighty secret in asthmas; and many commended it in such cases to be smoaked in the manner of tobacco; which several put in practice, and think it good, so used, against defluxions of rheum, and superfluous humidities.

VIRGÆ AUREÆ, Golden Rod; distinguished — *Angustifolia minus serrata*, by C. B. *Solidago Virga aurea angustifolia* Linn. It grows on hills, in woods; and flowers in July and August. This has been much commended, formerly as a restorative and a vulnerary; and likewise for its diuretic and lithontriptic qualities; and was also prescribed in diarrhœas and dysenteries; but it is now little in use in any intention.

THEÆ BOHEÆ, Bohea Tea. This is one of those things which luxury has introduced into diet; but it is yet a stranger in medicinal prescriptions. Simon Pauli took this to be the *Myrtus Brabantica*; and its leaves very much resemble the myrtle, of which there are abundance of kinds, differing both in figure and flavour. An insatiable curiosity after novelty, especially in matters of sensual gratification, almost continually multiplies new kinds or distinctions of this plant upon us; but as the bohea and green include all other subdivisions, we shall have regard to no other. This herb, by all relation, is prodigiously in esteem, and used in the oriental countries which produce it. Schroder is very particular in the manner of their

management of it; but the chief way is more proper to the green sort, and therefore we shall refer that to the section where it naturally falls; and only observe here, that the bohea, is found to be of a softening nourishing quality; and is therefore much in esteem for a breakfast, with or without milk. It very sensibly satisfies hunger, and affords a fine balsamic nourishment; and is therefore recommended, and very properly in all inward wastings, decays, and ulcerations, especially of the lungs. This has made some empirical impostors, with which this country very scandalously abounds, impose upon the world a pretended spirit of bohea-tea, for an infallible restorative, and a curer of all consumptive cases. But they must be very ignorant, who cannot see through such a cheat: for such balsamic qualities which easily draw out only with hot water, are the most remote imaginable from any thing of a spirituous nature; and therefore will not rise in a still under that denomination; and if they are endeavoured to be reduced to a spirit by fermentation, which seems altogether impracticable, yet by such an operation they will be so broke and changed, as wholly to lose their smooth, adhesive, and balsamic quality; and therefore can in no respect answer, in that form, the intention of a restorative.

Semina, Seeds of,

CICERIS, Chiches. *Cicer arvense*. Linn. There are three sorts in the shops, white, red, and black; as food they are very flatulent, and difficultly digested.

HORDEI, Barley. *Hordeum distichon*. Linn. What is used in

the shops, comes under the names of French and Pearl Barley; which are both of the same kind. The pearl barley is prepared in Germany and Holland, by grinding the shelled barley into little round granules, which appear of a kind of pearly whiteness. Boiled in decoction, they make it very soft and lubricating. It is chiefly used for emulsions in extemporaneous prescription; and it is drank likewise alone, to slake thirst, sheath acrimonies, and lubricate the passages in colic and nephritic pains. This barley in its several states is more cooling, less glutinous, and less nutritious than wheat or oats.—Common English barley is seldom or never used medicinally. Besides its nutritive virtues, in which it agrees with all other grain of the like kind, it is reckoned to have somewhat more absterive in it. For which reason, those who are not accustomed to it in bread, of which it makes the worst sort, will find it first to operate with them like a gentle cathartic. It is very probable, that a change from a finer and more nourishing bread to this, would, in many corpulent constitutions, be of great service, in reducing their exorbitant bulk, and cleansing the secretory passages.

LUPULI, Hops. This is distinguished into—*Sativus*, and *Sylvestris*, by Parkinson; *Humulus Lupulus fœminea*. Linn. That part of the plant which is such a mighty commodity in England, and used in our malt liquors, is reckoned very discutient, aperitive, and good in all obstructions of the viscera; and particularly of the liver and kidneys. And therefore that notion, of such liquors from them receiving a disposition to breed the stone in the bladder, can have

have no foundation. They are likewise an agreeable bitter, and upon that account good to strengthen the stomach, and render those liquors, in which they are brewed, much more grateful to it.

OROBİ, Bitter Vetch; it is also called *Eravum, siliquis articulatis, semine majori*, by C. B. *Orobis sylvaticus*. Linn. This is very little used; though sometimes ordered in cataplasms. The seeds are said to be useful in nephritic complaints.

Fruſus, Fruits of,

CACAO, Chocolate: called by John Bauhine, *Avellana Mexicana*; *Amygdalis ſimilis Guatimalenſis*, by Calper Bauhine; and *Theobroma Cacao*, Linn. It is chiefly cultivated in the iſlands of Cuba and Jamaica; and is very well known here as a nourishing food; though it is little met with in medicine. It is very oily and ſoft, and cannot but afford a ſuitable nourishment to weakly and decaying conſtitutions; eſpecially if the ſtomach is not too far impaired to receive and diſteſt it. It muſt be good likewise not only in all intentions as a nourisher, and a reſtorative, but as an emollient, by lubricating and relaxing the paſſages.

From the kernels of the chocolate nut, as well as from the fruit of the palm oil tree, is obtained a groſs ſebaceous matter, or ſubſtance of a butyraceous conſiſtence. Theſe concretes are obtained by boiling the ſubject in water, from the ſurface of which they are ſkimmed whiſt hot, and on cooling reſume their proper conſiſtence. Theſe ſubſtances have the ſame general properties with expreſſed oils, but are leſs diſpoſed to become rancid in keeping.

CYNOSBATI, Hips. Theſe are the fruit of the *Roſa ſylveſtris*, called alſo *Cynborrhodon*, and *Roſa Canina*; the common briar or dog-roſe. *Roſa Canina ſylveſtris humilior, germinibus ovatis, pedunculifque glabris, caule petiolifque aculeatis, flore adorato incarnato*. Linn. They are uſed only in conſerve in the ſhops; which is very frequently preſcribed in conſumptive caſes, and diſtempers of the breaſt particularly. It is alſo found good in coughs, from tickling deſluxions of rheum.

PISTACHIAE NUCES, Piſtachio Nuts, are the fruit of the *Piſtachia peregrina fructu racemoſo, ſive Tercebinthus Indica Theopraſti*, according to Bauhine. *Piſtachia vera*. Linn. They are ſometimes preſcribed in emulſions; into which form they enter as the ſweet almonds; and taſte very agreeably. They are accounted good in all diſtempers of the breaſt, being both healing and baſamic. They are likewise very nourishing and reſtorative in weakly conſtitutions.

Baſama, Baſams,

TOLUTANUM, of Tolu. The tree producing this, is a ſpecies of the pine, *Foliis Ceratæ ſimilibus*, C. B. *Touluifera Baſamum*. Linn. This is a baſam of a deep yellowiſh brown colour, approaching near to red; and of a moſt delicate ſcent, much beyond any other baſam. We have it from the Weſt-Indies. It firſt flows from the tree which produces it, of the conſiſtence of ordinary turpentine; but by keeping, we meet with it in the ſhops frequently ſo hard as to be brittle: and it ſeems not the worſe for being ſo; its baſamic parts cohering too cloſely to fly off, it is a moſt excellent baſamic and

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reſtorative;

restorative; is very good in all decays, particularly of the lungs. It softens the blood; and cures catarrhs, and coughs from tickling defluxions. Its healing virtues also extend to the remotest parts; and it is an extraordinary medicine in feminal weaknesses and old gleet, in both sexes. In short, there is not a better, more agreeable, and more efficacious drug in the shops, in all the above mentioned intentions. Of all the balsams in use, it is the mildest. A solution of this balsam in æther, is the balsamic æther of Sterné.

BDELLIUM, Bdellium. This gum is somewhat bitterish to the taste, looks transparent when broken, and if rubbed seems a fattish substance. It is thought to facilitate digestion, to discuss, and promote perspiration; and to be good in coughs and many disorders of the breast. But its chief use now in composition, is in discutient plasters.

BENZOINUM, Benjamin. A concrete resinous juice, obtained from a large tree (the *Laurus Benzoin*. Linn.) in both the Indies. The gum, which is best, is almost white; having lumps in it like almonds; for which reason it is called *Amygdaloides*, in distinction from other sorts not so good, and darker coloured. It is a wonderful pectoral, and very effectual against catarrhs, coughs, and asthma. It appears to possess in a good degree, the virtues of storax, and of balsam of Tolu. It will not dissolve but in a spirituous menstruum; and in the spirit of wine it makes a tincture, very much commended in taking freckles from the skin. It enters the composition of some plasters as a discutient and strengthener.

STYRAX, Storax. The tree producing this is distinguished by Casper Bauhine, *Folio Mali cotonei*; It is the *Styrax officinale* of Linn. It grows in Italy, and other countries. Some distinguish between the *Styrax Calamita* and the red sort; but Hoffman seems rightly to judge them the same, and to differ only in age; it growing higher coloured by keeping. There is also a liquid storax, concerning which there are various opinions not worth reciting here; especially since that which is now sold in the shops under that name, is so justly suspected to be fictitious, that it is hardly ever used. The former is both an excellent pectoral and cephalic. It is of a very fragrant scent, and looks of a reddish colour with some whitish clouds. The common Storax, that seems as if mixed with sawdust, is least esteemed, though when freed from the woody matter it is superior in point of fragrancy to any of the other sorts. Rectified spirit of wine dissolves it, leaving the wood behind: nor does this tincture lose much in being inspissated to an extract; though aqueous liquors elevate almost all the fragrancy. Storax is one of the most agreeable of the odoriferous resins, and may be administered to advantage in languors and debilities of the nervous system.

Radices, Roots of,

ERYNGII, Eryngo, or Sea-Holly. It is called also *Aster Atticus*, and *Inguinalis*; [See **ASTER ATTICUS**.] The *Eryngium vulgare* of C. B. is the Eryngo of the shops *Eryngium fol. radicalibus subrotundis plicatis spinosis, capitulis pedunculatis, paleis tricuspidadis*. Linn. This grows in sandy places, and

and near the sea-shore, &c. It flowers in July. The root only is in use; but it is now acknowledged only as a restorative; in which intention it is deservedly in great esteem. Some prescribe it in venereal cases, with the same view as sarsaparilla, to sweeten the acrimony of the humours, and prevent both their flux and erosion upon the *prostatæ*; or wherever they make those ulcerations which are difficult to cure.

IREOS, Orris, or Flower-de-Luce. This is divided into *Vulgaris violacea sive purpurea sylvestris*, which is cathartic, whose juice is used as an errhine. *Iris corollis imberbibus, petalis interioribus stigmate minoribus foliis ensiformibus*. Linn. and the *Florentina* or *Illyrica*, *Iris Florentina, caule foliis altiore subbifloro, floribus sessilibus albis, corollis barbatis*. Linn. which is most used now in

the shops and reckoned a good pectoral; on which account it is in many compositions of that nature; it is of a fragrant flavour; and most such ingredients are carminative, especially to infants, where the contents of the bowels are very sour and rancid; and may be corrected by such things as give a contrary sensation. It is also used as a colmetic in cleansing the skin.

PASTINACÆ, Parsnips. *Pastinaca sativa*. Linn. These are only used in food, and well known to all persons. They are reckoned of good nourishment.

SATYRII, seu *Orebitis*, Satyrion. We have already given an account of this amongst the cephalics; but it is accounted also a wonderful restorative, in weak decaying constitutions; and therefore it was thought not amiss to mention it again in this division.

Class 3. Of Vulneraries.

What is collected under this denomination, is of that sort of balsamics, which are not only softening and adhesive, but also, by a peculiar activity or disposition to motion, joined with a suitable configuration of parts, are apt to abrade and carry along with them such particles as they lay hold on in their passage; so that they differ from the next class, Of Detergents, only in degree.

All medicines of this intention are supposed both to cleanse and heal, that is, incarnate, or fill up with new flesh, all ulcerations, and foulnesses occasioned thereby, both internally and externally. Now to do this, in all internal cases especially, the medicine must preserve

its primary properties, until it arrive at the place of action; as was before observed under the general term of balsamics; and there it does what entitles it to this appellation; first by its adhesive quality, which consists in the comparative largeness of surface, and flexibility of its component parts. For by this it very readily falls into contact with, and adheres to, the slough of ulcerous exudations; which, by reason of their situation, are easily carried along with the medicine; and when such matter is so carried away, which is the cleansing or deterging part, what was instrumental in this office, will afterwards stick to, and adhere with the carneous filaments, until,

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by their addition, and the protusion of proper nourishment, *ab interno*, to the same place, the waste is made up; that is, the ulcer is healed.

After the same manner the operation of such substances is to be accounted for in external application. By the warmth of their parts they rarify; and by their adhesive quality they join with, and take off along with them, in every dressing, what is thrown upon the place to which they are applied, until a more convenient matter is supplied; which it forwards in adhering to, and inclosing the eroded cavities. Only this may be taken notice of, that internally, whatsoever of this kind is mixed with the animal fluids, by the known laws of circulation, they will be first separated and left behind. For all those parts, which are specifically heaviest, will move nearer the axis of the canals; because the *momenta* are the greatest; and will therefore carry them as near as can be in strait lines; but the lighter parts will always be jostled to the sides, where they soonest meet with outlets to give them vent; or are struck into such cavities as we are here speaking of; in which they adhere, and make part of the substance.

Folia, Leaves of,

ABROTANI, Southern-wood. Of this there are two kinds, the —*Fœminum foliis teretibus*, Lavender-Cotton; and the *Mas angustifolium majus*, Southernwood; the latter of which is most recommended in medicine. The Edinburgh College directs the *Artemisia foliis ramosissimis setaceis, caule erecto suffruticoso* of Linnæus. It is of a volatile pungent-scent;

which some compare to camphor. Its pungent bitter matter is totally extracted by Sp. Vini. R. but less perfectly by watery liquors. It is used as an anthelmintic. In leucophlegmatic habits, it is stimulant and sudorific. But the present practice almost wholly confines its use to external applications. The London College allows either of these sorts to be used for the other in fomentations.

ACETOSELLÆ, Wood-forrel; it has also the name of *Lujula* (which see) with some, and *Oxys alba* with Gerhard.

AGRIMONIÆ, Agrimony. *Agri-monia Eupatoria*. Linn. It grows plentifully in many places, and flowers the greatest part of the summer. The country people use the herb bruised, or its juice, in contusions and fresh wounds. It is said to strengthen the tone of the viscera, and hence hath been used against laxity of the intestines. Dr. Hill says, that six ounces of the crown of the root infused in a quart of boiling water, then sweetened with honey, and half a pint of it drank three times a day, is effectual in curing the jaundice.

ALCHIMILLÆ, Ladies Mantle; *Alchimilla vulgaris*, the common Ladies Mantle of C. B. and of Linnæus. It grows in wet and moist pasture ground; and is transplanted from thence into the gardens. It flowers in May and June. The leaves are moderately astringent, and so are the roots: the whole plant may be useful where mild astringents are required.

ASTER ATTICUS; *sen Inguinalis*, Starwort; distinguished—*Luteus verus* by Parkinson, the true *Aster Attic*, or yellow starwort; and by Casper Bauhine—*Luteus, foliolis ad florem rigidis*; yellow starwort

wort with little stiff leaves at the bottom of the flower. Its lower leaves are about four or five inches long, and one broad at the end; which is round-pointed, and grows narrower towards the root. The stalk is downy and hairy. The flower is like a mary-gold; and under each flower grows six or seven stiff, roundish leaves, in form of a star; whence the name proceeds. The leaves only are in use; and were anciently recommended against buboes and swellings in the groin, as a cataplasm; whence also the name *Inguinalis*.

BRASSICÆ, Coleworts, or Cabbage. The *Brassica Oleracea* of Linnæus, and its varieties. These are now out of use in medicine, although much taken notice of by ancient writers. As food they are not difficult to digest, not yet flatulent, as is generally said. The red sort is the most emollient and laxative. Rumeller says they have much nitre in their composition; which makes them diuretic. The authors of the *Schola Salernitana* make them of very different qualities; and will have them both to astringe and relax the bowels; and say also that they prevent drunkenness, from drinking spirituous liquors.

CHAMÆPITYOS, Ground-Pine; called also *Iva arthritica*, Gout-ivy; distinguished—*Lutea vulgaris seu folio trifido* by C. B. *Tecreum foliis trifidis linearibus integerrimis, floribus sessilibus lateralibus solitariis luteis, caule diffuso*. Linn. It grows on a sandy soil, but it is not very common; and flowers in July and August. It is of an ungrateful flavour to the stomach, and most so in decoction; yet it is prescribed as an aperitive and diuretic, and an opener of inward ob-

structions. But its chief excellency with most is thought to be in the gout; and it is much commended in rooting out and destroying the matter in the joints, which is supposed to cause those vehement pains, swellings, and sometimes chalky indurations; it is one of the ingredients in the famous gout, or Portland powder.

CHELIDONII, Celandine; *Rotundifolia minor*, and *Schrophularia minor*, of the Bauhines; which is the Pile-wort, but hardly ever used in medicine. *Ranunculus ficaria fol. cordatis angulatis petiolatis*. Linn. This grows wild in the fields, flowers in April, and is by all allowed to abound with a sharp acrid salt, which makes it deterfive; and is therefore recommended in the jaundice particularly, and all other obstructions and disorders in the viscera. The juice is also in esteem for taking clouds, films, and specks off the eyes.

DIGITALIS, Fox-glove;—*Purpureo folio aspero*, of C. B. is the kind referred to here. *Digitalis purpurea calycinis foliolis ovatis acutis, corollis obtusis; labio superiore integro*. Linn. But although this is said to be both cathartic and emetic, the present practice takes no notice of it in either intention.

DIPSACI, Teasel; is distinguished into the *Sativus*, called also *Carduus Fullonum*, and *Sylvestris*, aut *Virga pastoris major*, the greater Shepherd's-Rod. *Dipsacus Fullonum*. Linn. We know no other use it hath but in dressing cloth; unless what the superstition of some common people give it, in using it as a charm against agues.

EPITHYMI, Dodder of Thyme, is the *Cuscuta minor* of C. B. *Cuscuta Europæi epithimum lauri*. Linn. It hath a strong smell, and roughish, somewhat

somewhat pungent taste. Its virtues are yet undetermined.

FUNGUS SAMEUCI, Jews-ears; distinguished *Fungus membranaceus auriculans referens*, by C. B. and Ray. *Tremella Auricula*. Linn. These grow out of the elder-tree. They are little used but in decoction, which they make detergent and vulnerary; and are esteemed a good gargle in sore throats, and inflammations of the tonsils.

HERPÆ TERRESTRIS, Ground-ivy; called also *Cbamæcissus*. *Glechoma fol. reniformibus crenatis*. Linn. It grows in shady places, and flowers in April. It is of a pungent, earthy taste; and is very absterfve and vulnerary. It is not only prescribed in almost all distempers of the lungs and breast, but also accounted good in obstructions in the viscera. It is reckoned to do wonders in tubercles and tartarous indurations of the lungs. Willis, in his *Pharmacentica Rationalis*, part II. sect. 2. cap. 6. mightily commends its powder in obitinate coughs; especially those of young children. And Etmuller relates, that a maid was cured of a scorbutic consumption, with nothing else but a strong decoction of this herb, after a vomit had been first given. It is a very good custom, which has mightily obtained, of infusing it in malt liquors; for it not only helps to fine down those liquors, but also communicates its salutary virtues thereto, and makes them very wholesome. What goes by the name of gill-ale, is nothing but such a composition. But in all such cases, the herb picked clear from its stalks, and carefully dried, is much better then when it is green; and will make the infusion stronger and finer; because

its saline parts will not by much so soon mix with a foreign fluid, when they are as it were dissolved in the natural juice of the plant while it is green, as after that juice is dried away; and in those parts its medicinal efficacies consist. And therefore it avails nothing to make this an ingredient in any thing which is to be managed by distillation: and consequently, likewise, that must be a notorious imposition which is quacked upon the world for a spirit of ground-ivy, under the notion of being a great restorative and curer of consumptions; for the same reasons as were given against the distillation of bohea-tea.

HYPERICI, St. John's Wort; distinguished *Vulgare caule rotundo, foliis glabris*, by John Bauhine. *Hypericum trigynis, caule ancipiti, foliis obtusis pellucido punctatis*. Linn. It grows in thickets and hedges, and flowers in July. To the taste it is rough and bitterish; to the smell not agreeable. It is said to be corroborant and diuretic. It is much used in discutient fomentations; and the oil made of its flowers is in great esteem amongst our surgeons, both as an excellent discutient, and detergent. The flowery tops tinge expressed oils of a red colour, and communicate a blood-red to spirit of wine rectified. Some authors, as Sala, have much commended the use of this herb in melancholy and distraction; which seems to have given occasion to some enthusiasts to call it *Fuga Demonum*.

MARRUBII, Horehound. Of this there are two sorts; the — *Album*, which is also called *Prasum*, under which name there is a syrup made of it in the shops.

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Marrubium dentibus calycinis setaceis uncinatis. Linn. This grows in the highways, and flowers in June. This herb hath a strong and not agreeable smell, also a roughish very bitter taste. It possesses the virtue common to bitters, and is useful in coughs and humoural asthma's, and other chronical disorders. It is an useful aperient and deobstruent, promotes the fluid secretions in general, and freely taken, loosens the belly. The other sort is — *Nigrum*, but this is little used in medicine, though recommended by some for hypochondriac and hysteric affections.

MELILOTI, Melilot; *Trifolium Odoratum flore luteo*, by J. B. *Trifolium-melilotus officinalis.* Linn. It grows by the hedge-sides and in corn-fields, and flowers in July. It is discutient and aperitive, consisting of volatile and pungent parts, as is manifest by the smell; but as it is used only externally, we shall refer it to its proper class, under the topics.

OPHIOGLOSSI, Adder's-tongue, called *Lingua serpentina* by Parkinson; grows in the meadows, and low grounds, and flowers in April and May. It is accounted vulnerary, both internally and externally used.

PERFOLIATÆ, Thorow-wax; *Vulgarissima sive arvensis*, by C. B. *Bupleurum rotundi folia.* Linn. It grows among corn, flowers in July, and is said to be vulnerary; but it hardly ever occurs in modern practice.

PINI, Fir, or Pine. There are many kinds of this; but that referred to here, is the *Sativa officulis duris, foliis longis* of J. B. *Pinus Pineæ.* Linn. This is an ever-green. The tops are deter-

gent, vulnerary, and diuretic. The nuts are most in use: they are emollient, agglutinant, very nutritive; and therefore good in consumptions and inward wastings. They are very conveniently given in emulsions; as almonds, and some other nuts of the same kind. Some take notice of them as strengtheners of the genital parts; under which intention, Etmuller observes two ways of contributing to venery; one is by such things as these, which strengthen the parts, and increase the quantity of seed; and the other, such as the warmer aromatics, which only like a spur stimulate and inflame the desire, without adding to the ability of performance.

POLII MONTANI, Poley-mountain; *Montanum minus*, by Parkinson: it grows in Italy and France, and flowers most part of the summer. There is also a *Polum Creticum angustifolium*, brought from Candy, where it grows in plenty, and flowers in May, often confounded with the former; although it differs in phrase, but agrees in quality. The London College allows of either the *Polium maritimum erectum Mompeliacum*, C. B. or the *Polium angustifolium Creticum*, C. B. The first is cultivated in our gardens, and is the sort generally used. The Poleys are ranked by Linnæus under the genus of *Teucrium*. It is accounted deterfivè, and therefore good in all the intentions of this class, particularly a vulnerary. But its use is not great, either in the shop-compositions, or extemporaneous perscription.

PULMONARIÆ, Lung-wort; and *Symphytum maculosum sive Pulmonaria latifolia*, by C. B. called also

also Sage of Jerusalem. *Pulmonaria officinalis*. Linn. It is cultivated in gardens, and flowers in April. It has a glutinous juice, which helps it to consolidate, and heal ulcerations and erosions, which proceed from acrimony. It is commended in coughs, and spitting of blood. It is little used, either in the shops or prescriptions.

PYROLÆ, Winter-green; distinguished *Rotundifolia major*, by C.B. *Pyrola rotundifolia*. Linn. It grows on mountainous and woody places; and flowers in June: but though it is recommended for virtues belonging to this class, yet the present Pharmacy is an utter stranger to it.

VISCI QUERCINI, Mistletoe. *Viscum Album*. Linn. This grows out of several trees, and bears a white berry; that which the oak produces, is reckoned much the best; although we seldom have it but from the apple or pear-tree, the white-thorn, ash, lime, willow, or elm. This is both by the ancient and present physicians in great esteem for epilepsies; against which some will have it a specific. It is also frequently prescribed in apoplexies and vertigoes. It has a place in Riverius's *Pulvis de Gutteta*; but in few compositions besides. There hath been formerly published, in English, a treatise of the Mistletoe; wherein the author professedly supports his opinion of its virtues both from facts and experience; and warmly recommends its use as a specific in epilepsies, and many kinds of convulsions; alledging, where it fails it can do no harm: but its manifest qualities of astringency and viscosity plainly suggest the rules for its application, and the cases wherein it may do harm.

Gummi & Balsama, Gums and Balsams:

CARANNÆ, Gum Caranna. This is a hard, brittle, resinous gum, brought from some parts of the West Indies, as Carthagera and New Spain. It comes in little masses, rolled up in leaves of flags. It is said to exude from a species of palm-tree. It is of an aromatic flavour; and has been prescribed as cephalic. But is is now very little given inwardly; and its use being chiefly external, we shall refer it to the section of topics.

JUNIPERI, Juniper. *Juniperus Communis*. Linn. This is hard and resinous, and reckoned the same as the *Sandaraca* of the Arabians. Its inward use is little. It is hot, detergent, and healing; and therefore it is not amiss in some prescriptions against old gleets, that proceed more from debility than any malignity. Its external use see amongst the topics.

OPOPANACIS, Opopanax, is a gum which flows from a tree, affirmed by the best authors to be the *Panax Herculea* of Gerhard: which being wounded in the stalk, near the root, emits the aforesaid gum. According to Linnæus, it is obtained from the *Pastinaca Opopanax*, the Italian Parsnip or Opopanax. The best is that which is clear, free from dross, yellowish without-side, but whiter within, fattish, and of a fetid smell. It is not much used internally; and for the rest see under sect. 12.

SAGAPENI, Sagapenum. This is likewise the tear or gum of a ferulaceous tree, and chiefly comes to us from Alexandria. That is reckoned the best which has a pungent smell, somewhat resembling

bling that of a leek. This is much used for the same purposes as Asa-fœtida, and with success. The largest darker coloured pieces of bdellium are often substituted for the Sagapenum.

SARCOCOLLÆ, Sarcocol. Some say it comes from a siliquous plant, bearing a papilionaceous flower; others from a thorny Persian *Tithymalus*. The gum is granulated almost like mastich; of a pungent taste, but leaves a sweetness behind it, much like liquorice. It is warm, drying, and consolidating; but of little or no use inwardly. For its external use, see amongst the topics.

TEREBINTHINA è Chio, Chio Turpentine. This, as well as the Cyprus, flows from the true *Terebinthus*; described thus, *Folia pinata impari numero, decidua flosculi flaminei tuberculis ramulorum in longis racemis*; which is a tree very different from any of the firs or pines, whence we obtain the ordinary turpentines. It is the *Pistachia vera* of Linn. It takes the name of the place from whence it comes. It is harder and more fragrant to the smell than either the Venice, the Strasburgh, or the common; and is much the best as a strengthener, and not so disagreeable to the stomach as most of this tribe. There are almost as many kinds of turpentines as there are trees or plants of the fir-kind, of which there is abundance: and there is such plenty of it in that fir which comes to us from Norway for building, that we see it frequently ouze out of the boards it is cut into; which make their chips or shavings deservedly in esteem with some, to be boiled in diet-drinks, against old venereal remains, and

all those cases where the turpentine itself is good. This latter sort is generally brought to us in large shells, like that of a gourd, and grows harder (as indeed they all do) with age, and is the better for it. The best of this kind, which is of an aromatic flavour, does not very much fall short of the balsam of Tolu, in its most healing and sovereign qualities.

TEREBINTHINA, è Cypro, Cyprus Turpentine. This differs from the former, not so much in its medicinal efficacies as in consistence; being thicker, and of somewhat more fragrant scent. It has its name from the place it is principally brought from. It is more astringing, and less detersive than the common, and therefore more prescribed in glects.

TEREBINTHINA, Turpentine. Of this there are various kinds: the common is from the *Pinus sylvestris*, or Mountain-pine; and what is thickest and most hardened without art, is the common frankincense, as the colophony, and black resin, which is made by drawing off or exhaling the more liquid part. The Venice is from the larch-tree, which grows plentifully upon the Alps, and is distinguished by John B.—*folio deciduo conifera. Pinus Larix Rubra*. Linn. This being for that reason called sometimes *Resina Laricis*: this is much better than the former. But what excels all the thin turpentines, is the *Terebinthina Argentoratensis*, Strasburgh Turpentine; whose tree is distinguished by C. B.—*Mas conis sursum spectantibus*; called by us the silver fir. *Pinus abies alba*. Linn. This is of a whitish green hue; clear, fragrant, and of a citron flavour. But the scarcity of this beyond the other,

other, tempts our druggists grievously to adulterate it with mixtures of the former and factitious scents; but it will not keep long without discovering the fraud, by running into thicker and thinner parts. The many purposes for which this is used in medicine, can hardly be enumerated. It is a great vulnerary, and very detergent; and therefore prescribed in all suspicions of abscesses and ulcerations, in what part soever. It mightily assists expectoration in diseases of the lungs and breast; and is therefore good in asthmas and pleurisies. But it most of all is famous for cleansing the urinary passages; and its disposition to pass that way is very manifest from its altering the smell of the water, though taken in ever so little a quantity, which it makes of a violet scent. Upon this account it is very good in all obstructions of the reins, whether from sand, or any mucous adhesions; and also in gonorrhœas, which it wonderfully cleanses and heals; insomuch that there is hardly a case of that kind now cured, which has not had some assistance from this ingredient; though in some cases it may be over-done; as it is very warm; and upon that account will dispose the testicles to tumours and inflammations;

and likewise sometimes scour the passages so much as to make it difficult to bring them to their due tensions and capacities afterwards; whence arise gleets, and involuntary emissions. To make it more agglutinating, and less detergent, it is sometimes boiled in water, until it becomes hard and brittle as common resin; and such management makes it fitter also to give in other forms, as powders, electaries, or boluses; which its tenacity and adhesive properties made it before unfit for. This is frequently in the composition of glysters against colics; especially if they are suspected to proceed from the stone and gravel: into which form it is brought by mixing it first with the yolk of an egg; for that divides it, so as to make it easily unite with an aqueous vehicle: which of itself it will not do. Its use in chirurgery is likewise very extensive, which see amongst the topics.

Cortex Ulmi, Elm-tree bark. This is sometimes prescribed in decoction as a vulnerary. It makes a good gargarism for sore mouths, occasioned by heat and sharpness of humours; but is used in little else. Some have supposed it to possess great virtues in curing cutaneous foulnesses.

Class 4. *Of Detergents and Digestives.*

These differ only in degree of efficacy from the former class. They are of more subtile parts, and therefore fitter to mix with, attenuate, and wear away the contents of abscesses and ulcerations, and those mucous and viscid collections of humours, which are

apt to adhere to and obstruct the vessels.

Folia, Herbs or Leaves of,

Abietis; distinguished by Caspar Bauhine—*Conis sursum spectantibus sive mas*; the Male Fir. *Pinus abies alba* Linn. And the same which

which the Strasburg turpentine is produced from. The green tops are sometimes prescribed in detensive diet-drinks and apozems.— They are good against all obstructions of the viscera, especially of the kidneys, which they are effectual in cleansing, by virtue of those turpentine particles which are drawn from it in decoction. They are also accounted a good ingredient in anti-scorbutic compositions; as indeed are all deterfives and diuretics; because the more they cleanse the excretory passages, especially by urine, the less will the capillaries be obstructed by acrimonious juices; wherein the very essence of the scurvy consists.

ABSINTHII VULGARIS, Common Wormwood. *Artemisia fol. compositis multifidis, floribus subglobosis pendulis receptaculo villoso*, Linnæi. This is sufficiently known to all. It has been in great esteem, but is now almost laid aside, gentian and orange-peels being much preferred to it; both as they make a more grateful bitter, and are so extremely hot and drying: for wormwood, by these qualities, has been observed to hurt the sight. This herb is in some of the shop compositions, and a good ingredient enough in cephalic distilled waters. By long keeping, and more effectually by coction, its offensive smell is removed; and the bitter remains entire. Its extract is a grateful bitter, if prepared by long boiling in water.

ALLII, Garlic. It is only the root of this which is in use. Each root is composed of a number of lesser bulbs, called Cloves of Garlic, inclosed in one common membranous coat, and easily separable from one another. It is the *Alli-*

um caule planifolio bulbifero, bulbo composito, flaminibus tricuspидatis. Linn. It is very aperient and discutient, being loaded with very subtil and volatile parts. It is likewise very diuretic, as appears by its smell in the urine; and upon that account serviceable in some dropsies. It is extremely penetrating and discutient in cataplasms: it warms, and attenuates cold viscid juices, hence it is a powerful expectorant. The liberal use of garlic is apt to occasion headaches, flatulencies, thirst, febrile heats, inflammatory distempers, and sometimes discharges of blood from the hæmorrhoidal vessels. In constitutions where the juices are already thin and acrid, or the viscera unsound, this medicine never fails to aggravate the distemper. The pleasantest form of administering garlic, is in a pill or a bolus.

AMMI VERRI, Bishop's-weed; called by some *Cuminum Æthiopicum*, Æthiopian Cummin. That referred to in our officinal prescriptions, is the *Ammi semine Apii*, that with a seed like smallage described by C. B. *Ammi majus*. Linn. It is brought from Egypt. The seeds are striated, of a reddish brown colour, a warm and pungent taste, an agreeable smell, like that of origanum. They are warming, carminative, and diuretic.

ANACALLIDIS AQUATICÆ, Brook-lime. This is also called Beccabunga, and variously distinguished by botanists; but the officinal sort is commonly enough known, called *Aquatica minor folio subrotundo*, by C. B. *Veronica Becabunga racemis lateralibus, foliis ovatis planis, caule repente*. Linn. It grows in rivulets and flowers in May and June. It

abounds with pungent volatile parts; which enable it to abrade, and clear away those little viscosities that obstruct the capillaries, and occasion scabs and blotches. It is also diuretic, and a cleanser of all the viscera; which gives it frequently a place in anti-scorbutic and deobstruent compositions.

ANONIS, Rest-Harrow, is the *Anonis* of Dioscorides, and the *Oenanthe* of Theophrastus. It is by some writers called *Restia Bovis*, *Anonis spinosa flore purpureo* of C. B. *Anonis Antiquorum*. Linn. The herb and roots are both used. It grows in the fields near highways, and flowers in June and July. It is said to heat, dry, discuss, absterge, and attenuate; and is prescribed in obstructions of all kinds. Some recommend its infusion for the hæmorrhoides; as also in a gargarism for scorbutic gums, and pains in the teeth; but the present practice gives little credit to it in those cases.

APII, Smallage. This seems to be a kind of parsley, and is also called *Eleoselinum*, and *Paludapium*; distinguished—*Palustre*, by Casp. Bauhine. *Apium graveolens*. Linn. It consists of many volatile and subtile parts; and is therefore aperient and discussive. Its root is one of the five great openers.—There needs no trouble to reduce it into any medicinal forms, because it is so convenient and agreeable in fallads. It is very good in gross constitutions, and infarctions of the lungs; especially if eat with oil and mustard. It helps to attenuate and dislodge the viscid humours, and suit them to pass off by urine and transpiration. It also assists in cleansing the liver, and is good in the jaundice.

AQUILEGIÆ, Columbine.

There are various species of this, differing mostly in their flowers; but the officinal sort is the *simplex seu sylvestris flore cæruleo* C. B. the simple or wild columbine with a blue flower. *Aquilegia vulgaris*. Linn. The herb, flowers, and seeds are used in the shops. It grows without culture in the woods; but is often planted in the gardens; it flowers in June and July. It moderately warms, dries, and opens: whence it obtains a place in prescriptions against the jaundice, and such like ill habits from obstructions.

ARTANITÆ, Sowbread; *Cyclamen orbiculato folio inferne purpurascens*, or *Hederæ folio* C. B. *Cyclamen autumnale hederæ folium flore purpureo*. Linn. Its root is most in use, and is to be gathered in autumn. The root hath, when fresh, an extremely acrimonious burning taste, which it almost entirely loses on being dried. It is said very powerfully to open and deterge; for which reason it is recommended in the jaundice, gravel, and all obstinate obstructions; Externally it hath been used to discuss scrophulous tumours; and indeed its acrimony and pungency fits it more safely for external use than internal. It hath also had a place amongst emetics.

ASPERULÆ ODORATÆ, Linn. Woodroof; that described by C. Bauhine by the distinction of *Asperula seu Rubeola montana odorata*, Woodroof, or sweet mountain madder, is the officinal kind. It grows in woody places, and flowers in April and May. It is warm and drying, and recommended as a good hepatic and detergent. It strengthens the tone of the bowels. It is improved by moderate drying.

ASPLENII,

ASPLENII, Spleen-wort. This is the same as the *Scolopendrium Verum*. *Asplenium Ceterach*. Linn. The *Scolopendria Vulgaris* is the hart's-tongue. *Asplenium Scolopendrium*. Linn. They are neither of them much in use. See Section II. Class 1.

BOTRYOS, Jerusalem-oak. This is also called Ambrosia. It is a species of the blitum, *Ambrosoides Vulgaris*, C. B. *Chenopodium Botryos*. Linn. It hath anciently been of great account in diseases of the breast, and particularly in difficulty of breathing; as we find in Dioscorides and Paulus Ægineta. An infusion of it is drank as tea

CAPPARIS, Capers; *Caparis spinosa*, *fructu minore*, *folio rotundo*, C. B. *Capperis Spinosa*, Linn. These are buds of the fruit of a tree, which are brought over to us in pickle. They are in some ancient Dispensatory compositions; but their use in any medicinal form is now quite laid aside; and we meet with them only in sauces. It is probable the pickle in which they are preserved, may alter their natural qualities; but as we have them in that, they are cooling and grateful to the stomach, conducive to digestion, and are cleansing, aperient, and diuretic.

CAPRIFOLII, called also *Matri-sylva*, and *Perichlymenum*; is the woodbine, or honeysuckle. *Lonicera capitulis ovatis imbricatis terminalibus*, *foliis omnibus distinctis*. Linn. It flowers in June; and the places of its growth are commonly enough known. Its medicinal virtues, however, although said to be detergent and cleansing, are not regarded at present.

CHAMÆDRYOS, Germander, otherwise called *Triffago*; and by Casp. *Bauhine—minor repens*.—

Teucrium foliis ovatis inciso crenatis petiolatis, *floribus subverticillatis ternis*, *caulibus procumbentibus*. Linn. It is cultivated in gardens, and flowers in June. The whole plant hath a bitterish, somewhat astringent taste, and also a slightly aromatic flavour. It is recommended as alexipharmac, diuretic, and for strengthening the stomach and viscera in general.

CARDAMINES, Cuckow-Flower, Meadow-Cresses or Ladies-Smock. This is a kind of *Nasturtium*; and is distinguished *Nasturtium pratense*, *magno flore*, by C. B. *Cardamine pratensis fol. pinnatis: foliolis radicalibus subrotundis caulinis lanceolatis*. Linn. Some think it possesses great virtues against epilepsies, and I believe experience has found it serviceable in some epileptic cases. See Lond. Med. Transf. vol. i.

COCHLEARIÆ HORTENSIS, Garden Scurvy-grass; distinguished by most botanists, *Folio subrotundo*, or *rotundifolia*; and also—*Batava*; being mostly the produce of Holland, though it is frequent enough in our gardens. *Cochlearia fol. radicalibus subrotundis*, *caulinis oblongis subsinuatis*. Linn. It flowers in May. It is very subtle and volatile; inso-much that there is no bearing one's nose any longer over the herb when bruised, than over the strongest spirit of hartshorn. For which reason it is very powerful in cutting and deterging viscid and tough humours, and enabling them to pass through their proper conveyances. This makes them good in all infarctions of the viscera, especially from phlegm; and in such cutaneous obstructions, as produce scorbutic eruptions and scabs. Its manifest efficacy in all these cases,

which are the foundation of many chronical distempers, has brought it into use both in the shops and extemporaneous prescription, almost in all manner of medicinal forms. The conserve made of it seems to be the best preparation of it in the shops; though the fresher, the better it is; the more volatile parts making their escape in time. This property also suits it very much for distillation; and the plain spirit of scurvy-grass, which is in such mighty esteem amongst the common people, has the best part of the herb in it. Indeed the weightier saline parts may not rise, whence it will not be so effectual a diuretic; yet it will rather the better answer all intentions as a discutient, and an opener; particularly of the minutest passages, such as the cutaneous glands. But it is by no means good in thin, dry, and hectic constitutions: for as it will add to the heat and motion of the blood, it cannot but increase all those complaints and disorders which arise from that extreme.

COCHLEARIAE, MARINÆ, Sea Scurvy-grass. This is more particularly distinguished—*Britannica folio sinuato*, by C. B. *Cochlearia Anglica*. Linn. and is a smaller-leaved sort, of the same virtue with the former, but something less powerful; and it is not so volatile and subtil. It is not used so much in the shop-medicines; but is frequently ordered in the same intentions as the other, in prescription. But as it least abounds with the salt, which is volatile, it seems to have more of what is of fixed nature, and upon that account may be a better diuretic than the former.

CRITHMI, Samphire; called

likewise *Feniculum marinum*.—*Crithmum Maritimum*. Linn. It grows on precipices and rocks near the sea; and flowers in July. It is recommended against obstructions of the viscera, and urinary passages; but it is more used as a sauce in pickle, than in medicine.

ERYSIMI, Hedge-mustard; otherwise called *Erysimum vulgare*, common *Erysimum*. *Erysimum officinale*. Linn. It grows in great plenty in many parts of England; and flowers about July and August. It is biting and pungent, not much unlike common mustard; and in like manner it is aperient and discutient. It is prescribed chiefly in asthmas, infarctions of the lungs, and chronical coughs.

EUPATORII, Maudlin. This is the *Eupatorium* of Mesue. *Achillea Argeratum*. Linn. That of Avicen being the *Eupatorium Cannabinum* Linn. before-mentioned. It flowers about July. Among the Arabian physicians, both were in wonderful esteem. But it hath been so long in neglect, that we hardly ever meet with it ordered in any intention.

FUMARIAE, Fumitory, distinguished—*Purpurea*, by Gerhard. *Fumaria pericarpis monospermis racemosis, caule diffusis*. Linn. It is to be met with plentifully in many places; and it flowers in May and June. Two ounces of the juice given in whey, gently opens the body. The extract is the best preparation; of which one dram loosens the belly. It also strengthens the bowels and promotes urine. It is an herb difficult to dry; and its juice, which is used as an anti-scorbutic, with whey, in the spring-time, will not keep; so that it is now little used in the shops.

GENISTÆ, Broom; distinguished — *Angulosa* & *Scoparia*, by C. and — *Angulosa trifolia*, by J. B. *Spartium foliis terxatis foliariisque, ramis inermibus angulatis*. Linn. This grows much upon heathy ground; and is in flower almost all the summer. Many gather the yellow buds, and pickle them with salt and vinegar, in the same manner as capers; from which they are not then to be distinguished. The flowers are most in use; they cleanse away gravel and serous humours, both by stool and urine, and are accounted extraordinary in cachexies and drop-sies. For this reason they are a chief ingredient in some medicinal ales. Their ashes, which are made by calcination, and are so much extolled for purging off waters in drop-sies, are no better than any other ashes made in the same manner; for all lixivious salts are diuretic.

GRATIOLÆ, Hedge-hyssop; called by C. B. *Centauroides*. *Gratiola Officinalis*. Linn. It is cultivated in gardens; and flowers in July. The infusion of a handful of the fresh leaves, or a dram of the dry, is purgative. Kramer says (Centaur. Botanic. p. 18.) that the virtues of the root are similar to that of ipecacuhana.

HEPATICÆ, Liverwort; called also Lichen, and distinguished *Metreum latifolium, sive Hepatica fontana*, by C. B. It grows near springs, wells, and watery places, very low, almost like moss, and puts out flowers about June, not unlike stars. It is not much in the shop-dispensations; but frequently prescribed in anti-scorbutic and medicinal ales and drinks in spring time.

LICHEN TERRESTRIS CINE-

REUS. *Lichen Caninus, or Lichen coriaceus repens lobatus obtusus planus: subtus venosus villosus, pelta marginali adscendente*. Linn. It consists of thick crumpled hollow leaves, ash-coloured on the upper-side, and somewhat whiter below. It is accounted a specific for the bite of a mad dog; and enters the *Pulvis Antilyssus* of the College. It is met with on commons, open heaths, and dry barren places all the year round, but the best time to gather it is betwixt autumn and winter.

HYSSOPi, Hyssop; distinguished — *Cærulea sive spicata*, by C. B. *Hyssopus spicis secundis foliis lanceolatis*. Linn. It is cultivated in gardens, and flowers in July and August. It is warm and detergent; and therefore good in many kinds of coughs and disorders of the lungs and breast, which arise from phlegm and viscid humours. It is good in asthma, promotes expectoration, and gives relief in difficulty of breathing. It is almost a constant ingredient in pectoral apozems. This is one of those very few simples, of which there is a distilled water good for any thing in the shops. For there comes over with it so much of a warm essential oil, as not only preserves it from mother and stinking (which most simple waters are subject to), but also makes it a good pectoral, and efficacious to all those purposes, which the herb is given for in any other forms.

HIPPOSELINI; thus called by Theophrastus, and *Smyrniūm* by Dioscorides; *Smyrniūm Olusatrum* Linn. Alexanders. It grows in rocky places; flowers in June, and is recommended for virtues belonging to this class. It is somewhat

more powerful than smallage, but of very similar qualities with it.

IBERIDIS, Sciatica-creffes; distinguished—*Latiore folio*, by C. B. *Lepidium Iberis*. Linn. It agrees in virtues as well as in tribe, with the common creffes. Externally it hath been applied against the sciatica, whence its name.

LIGUSTRI, Privet. *Ligustri vulgare*. Linn. It commonly grows in woods and hedges, and flowers almost all the summer; but although it is recommended for the virtues belonging to this class, it is not at all used in the present practice.

MENTASTRI, Horse-mint. *Mentha Sylvestris*. Linn. This is almost unknown in medicine. Its virtues, as also the plant itself, have some resemblance to the Spear-mint: but it is stronger and bitterish. See MINT.

NASTURTII AQUATICI, Water-Creffes. *Sisymbrium siliquis declinatis, foliis pinnatis: foliolis subcordatis*. Linn. There is also the *Nasturtium Hortense*, garden-creffes; but it is only used in salads; and is of the same virtues as the other in a lower degree. The *Nasturtium aquaticum* grows, as the *Anagallis Aquatica*, in rivulets or springs; flowers in July and August; and keeps green, and in some measure growing the whole winter. This hath a sharp penetrating taste, and is reckoned very deterfive. It is therefore used in all chronical diseases, which arise from glandulous obstructions; and particularly the scurvy; for which end its juice is amongst the antiscorbutics, which some undergo a course of in the spring-time. Hoffman recommends this herb for accelerating the circulation, strengthening the viscera, opening ob-

structions of the glands, and promoting fluid secretions; for these purposes he orders the expressed juice, which contains the peculiar taste and pungency of the herb, which may be taken to one or two ounces for a dose, every day.

PANACIS, All-heal; denominated *Herculeum majus* by Gerhard. It is to be met with in the gardens of the curious; and hath ascribed to it virtues which entitle it to this class; but the present pharmacy takes no notice of it. There is the *Panax Coloni*, Clown's All-heal, which the common people use to fresh wounds with success.

PORRI, Leeks. *Allium Porrum*. Linn. These are used much more in food than in physic. These are so much of the same nature as garlic, mentioned in this section, that the reader may turn thither for its other properties. The leeks are a weaker kind of garlic.

RUSCI, Butcher's-Broom. It is also called *Bruscus*. *Ruscus aculeatus*. Linn. It grows in thickets and hedges; is of an austere and bitterish taste, and accounted aperient and deterfive. It hath no place in medicine now, but upon the merits of its roots, which are one of the five greater openers.

SAMBUCI, Elder; distinguished *Fruetu in umbello nigro*, by C. B. *Sambucus cynis quinque partitis caule arboreo*. Linn. This tree hath not one part but is used in pharmacy. There has been a treatise wrote by one Martinus Blockwizius, called the Anatomy of the Elder; but as its several parts are somewhat different in their efficacies, and most naturally, according to our method, fall under other subdivisions, we shall just take notice here, that the leaves are

are only used in the shops to make an oil and ointment for some external intentions; and that they are sometimes, by way of cataplasm, applied hot to an erysipelas, and inflammatory tumours. The young buds or rudiments of the leaves are strongest and purgative.

SATUREIÆ, Savory; distinguished—*Hortensis sive Cunicula fativa Plinii*, by C. Bauhine. *Satureja Hortensis* Linn. It is much cultivated in our gardens; but little used in medicine. It is reckoned warm and discutive; good against crudities of the stomach, althmas, and menstrual obstructions.

SCROPHULARIÆ, Fig-wort; called — *Major vulgaris*, by Parkinson. *Scrophularia nodosa*. Linn. It grows in the hedges, flowers in July, and hath the virtues of this class belonging to it; but it is very little used.

SECALIS, Rye. *Secale cereale hybernium*. Linn. This is not in any medicinal dispensation; but it is the common bread among the meaner sort in some countries. It purges those who are not used to it; and is reckoned more detergent than any other grain of which bread is made. It is by some used in suppurative and discutient cataplasms; and not always without success to the parts affected with the gout.

SOPHIÆ CHIRURGICORUM, Flaxweed; with Casp. Bauhine—*Nasturtium sylvestre tenuissime divisum*; Wild cress with leaves very finely divided. *Sisymbrium sophia*. Linn. The stalks rise two feet high; and are beset with numerous long-winged, and very neatly divided green leaves; resembling those of the true Roman wormwood; and adorned with very fine short hairs:

it grows commonly in sandy ground, or among rubbish, and flowers in June. The seed is the chief part in use; and said, if boiled without bruising, to cure the bloody flux: and to be good in the stone and gravel.

TANACETI, Tansey. *Tanacetum foliis bipinnatis incisiss ferratis*. Linn. This hath many distinctions in botanic writers; and by some is made a species of the *Artemisia*; but the *Tanacetum Vulgare* of Parkinson is the only sort cultivated amongst us. It flowers in June and July. It discusses, is uterine, and nephritic. It is accounted, by many, efficacious in destroying worms; particularly the seed, which is, for that reason, frequently made a *succedaneum* to worm-seed, or the *Semina Santonica*. It is a moderately warm bitter, and is used by many against hysteric disorders from a deficiency of the menses, or from their suppression. The seeds are less bitter, but more acrid and aromatic than those of rue, to which they are similar, as a medicine.

TRIFOLII PALUSTRIS sive Paludosi, Marsh trefoil, or buckbeans. *Menyanthes palustris latifolia, foliis ternatis*. Linn. the leaves. This plant grows wild in moist marshy places: it has three oval leaves, standing together upon one pedicle, which issues from the root; their taste is very bitter, and somewhat nauseous. Marsh trefoil is an efficacious aperient and deobstruent, promotes the fluid secretions, and, if liberally taken, gently loosens the belly. It has of late gained great reputation in scorbutic and scrophulous disorders: and its good effects in these cases have been warranted by experience: inveterate cutaneous diseases have
been

been removed by an infusion of the leaves, drank to the quantity of a pint a day, at proper intervals, and continued for some weeks. Boerhaave relates, that he was relieved of the gout by drinking the juice mixed with whey.

VERBENÆ, Vervain, chiefly distinguished into male and female. *Verbena Officinalis*. Linn. It flowers in June and July. It is of a sub-astringent and bitterish taste, is detergent, and reckoned good in all indurations and obstructions of the liver, spleen, reins, or mesentery: but it is little used inwardly. Externally it is of great use in pains of the head, applied various ways. Forestus gives an almost incredible instance of its virtues for this purpose, in Lib. IX. Ob-servat. 52.

VERONICÆ MARIS, Paul's Betony, or Male Speedwell. *Veronica Officinalis*. Linn. This is in flower about June. It is accounted a good deterging vulnerary; and given in erosions and obstructions of the lungs, both to expectorate and heal. It is also prescribed in some antiscorbutic decoctions, and reckoned good to cleanse the blood, and wear away blotches and cutaneous eruptions.

Flores, Flowers.

FLORES SAMBUCI, Elder Flowers. *Sambucus nigra*. Linn. They blow from May to July. These are emollient, discutient, and anodyne; though little used inwardly, unless in the water that is distilled from them; which is very good, and will keep well enough if they be sprinkled over with a little spirit before distillation; else it will decay before fresh flowers come again, as most sin-

ple waters do. They are used in many external applications, in erysipetulous inflammations, and arthritic swellings. There is an excellent ointment to be made with them; but there is seldom care enough taken in the shops to order it right; which shall be directed in the following part. Simon Pauli likewise gave them inwardly to be drank in milk, in inflammations.

Semina, Seeds of,

AMMEOS, Bishop's-Weed. There are two kinds of this, the —*Vulgatus* of Parkinson, and —*Majus* of C. B. and the *Ammi verum offic.* distinguished—*Semine Apii* by C. and—*Odore Origani* by J. B. the last of which comes from Egypt about Alexandria; and is the true officinal sort; *Ammi Majus*. Linn. though the other is sometimes used for it. These seeds are of subtil parts, opening and discussive: hence they are not only used in colics and windy disorders of the stomach, as carminatives; but likewise in obstructions of the menses and urine.

ERUCÆ, Rocket. See Section IV. Class 2.

FRAXINI, Ash. *Fraxinus excelsior*. Linn. These are inclosed in what the country people call the Ashen-keys. They are very little used in composition; but accounted good in the jaundice, pleurisy, and the stone.

NASTURTII, Cresses. They are of the same virtues as the herb; and, for the convenience of keeping them dry in the shops, are more in use in the officinal compositions; though the other much more in extemporaneous prescriptions.

Fructus,

Fructus, Fruits.

AMYGDALÆ AMARÆ, Bitter Almonds. *Amygdalus communis*, Linn. These are aperient, detergent, and diuretic; and therefore commended in obstructions of the liver, spleen, mesentery, and womb. The oil differs not from the oil of sweet almonds. They are of very little account in the present practice, unless among those artists who have learned to make black-cherry-water with them: for they give very much the same relish in distillation as the kernel of the cherry-stones. And for the same reason we have them frequently in ratafia, instead of the apricot kernels.

FICUS COMMUNES, Common Figs. The fruit of the *Ficus Carica*, or the *Ficus Communis*, *fol. palmatis*, Linn. These are detergent and vulnerary; they are therefore in many prescriptions for distempers of the lungs and breast; and are an useful ingredient in pectoral decoctions, because they very much promote expectoration; and are therefore good in all humoral asthmas, and difficulties of breathing. They are also reckoned to be diuretic, and to cleanse the urinary passages of gravel and sandy concretions. They have with some been in great repute for suppurating and cleansing pestilential buboes. Some use them, being only toasted by the fire, for imposthumations in the ears and gums.

JUJUBEÆ, Jujubs. *Rhamnus Zizyphus*, Linn. These are an Italian fruit, pretty much of the same virtues as the former; and therefore used in most of the same compositions for the like purposes. The tree producing these, which also grows in some parts of Spain,

is called *Zizyphus* by some botanists; and by John Bauhine the *Zizypha Sativa*.

SAMBUCI BACCÆ, Elder-Berries. *Sambucus Nigra*, Linn. Of these we have a syrup and a spirit made in the shops; the former is reckoned antiscorbutic, and therefore prescribed in cachexies and dropries; for which purposes the latter is also accounted good by some; but the fermentation which they undergo, alters those natural properties, and leaves it with no other virtues than those of any other spirituous liquor. See Rob of Elder-berries.

PASSULÆ SOLIS. Raisins of the sun. These are dried grapes. The fruit of a variety of the *Vitis vinifera*, Linn. They are a grateful fruit, and very detergent; for which reason they are in most compositions, to promote expectoration, and dislodge obstructed viscidities in the bronchia; as also to cleanse the viscera, and particularly the kidneys and urinary passages. The *Passule minores*, or *Corinthiacæ*, Currants, are of the like nature, but from a smaller and different coloured grape: however, they are not so much used in medicine.

PINI NUCES, Pine-Nuts. These are of a moderate warmth, gently detergent and vulnerary. They are therefore recommended in some coughs and in consumptions; as also in stranguries and sharpness and heat of urine; and are reckoned good in ulcerations of the kidneys.

SEBESTEN, Sebestens. *Coria Sebesten*, Linn. These are a fruit not much unlike the Damascus prunes; and are brought from Syria and Egypt. They are moderately cooling and emollient, and help to obtund the acrimony of the

the humours; therefore they are recommended in tickling defluxions, catarrhs, sharpness of urine, bilious fevers, and costiveness. But for their deterfive qualities, they are generally used in pectoral medicines, for the same intentions as figs, railins, and the like.

DACTYLI, Dates. These are a fruit of the palm-tree, called *Palma dactylifera*. *Phoenix dactylifera*, Linn. which grows in Syria, Judea, and other hot countries. The best are brought from Tunis. Those are best which are large, full, flat, and of a yellowish colour. They are somewhat astringent, until thoroughly ripe, and then much of the same nature as figs. They are said to be good in hoarseness, infarctions of the lungs, and sandy obstructions of the reins and bladder.

JUNIPERI BACCÆ. Juniper-berries. The tree is the *Juniperus fol. ternis patentibus mucronatis, bacca longioribus*. Linn. The juniper was so much in the good esteem of Etmuller, that he thought it deserved a whole treatise. All the parts of this tree are of a balsamic nature; as indeed are in some measure all the ever-greens. This by some has been confounded with the cedar; and Van Helmont, in his medicines to prolong life, for the cedar substitutes the juniper. The gum flowing from this tree, was the Sandaracha of the Arabians. The berries are supposed to contain the virtues of the whole; and are very much used for many medicinal purposes. Some will have them to be great strengtheners of the stomach, and effectual against malignities and epidemical infections. The rob made of their expressed juice when green, is called the *Theriaca Ger-*

manorum; so much were they in esteem amongst them for their antipestilential qualities. They are certainly carminative, and very much contribute to dissipate wind, and flatulencies in the stomach and bowels. But their most celebrated and remarkable properties are, in deterging and scouring the viscera, and particularly the reins and urinary passages; as all indeed of the turpentine kind do. For this reason they are frequently met with in compositions, both officinal and extemporaneous, for the jaundice, cachexies, dropsies, and difficulty of urine. They are very convenient in decoction; and in distillation part with those qualities, as much as any of the like substances do, insomuch that their spirit is serviceable the same way, and much promotes urine. They afford a considerable quantity of oil in distillation, effectual to the same purpose, and not greatly differing from oil of turpentine in smell and virtue. These are mightily used in medicated ales and diet-drinks, for all the above-mentioned intentions.

Gummi, Balsama, & similia; Gums, Balsams, &c.

AMMONIACUM, Gum Ammoniac. This is a gum from a ferulaceous plant growing in some parts of Asia. That is best which is freest from dross, of a yellowish colour without, and white within, of a bitterish taste and castor smell. Such tears as are large, dry, free from little stones, &c. should be picked out, for internal use. It very much attenuates and deterges; and is therefore properly used in all distempers arising from grumes and viscidities, which stuff up the vessels; and particularly prevent
a due

a due motion of the nervous fluids. For this reason it is found of mighty service, not only in asthmas and infarctions of the lungs, but in nervous cases, and particularly those termed hysterical. The most convenient form to prescribe it, is by way of pills. Some dissolve it in vinegar and other liquors, and call it *Lac Ammoniacum*: which is much used in asthmas; but that form is nauseous to some. In long and obstinate colics proceeding from viscid matter lodged in the intestines, this gummy resin has produced happy effects, after purges and the common carminatives have been used. It is also in the composition of many topics as a suppurative.

CAPIVI, Id. This is the produce of the *Balsamum Americanum* of Caspar Bauhine, *Copaifera Officinalis*. Linn. and it grows most in Brasil. The balsam is of a thinner consistence than the common turpentine; but much more fragrant and deterfive. It is extremely quick in passing off by urine, and mightily cleanses those passages; for which reason it hath obtained very much in gonorrhœas, and all obstructions and ulcerations of those parts. It is so good a diuretic, that it hath sometimes succeeded in dropfies, when every thing else had failed. It is likewise a powerful balsamic, and good in many distempers of the breast. The yolk of an egg will mix it in any liquid form; but thus managed it becomes very nauseous to the taste; the mucilage of gum arabic is preferable. The most agreeable way of taking it, is either in powdered sugar, or dropped into water. Fuller says, that the true balsam capivi does not give the violet smell to urine, as is

observed by all other turpentine, but that it renders this excretion intensely bitter.

GILEADENSE, Balm of Gilead. It is also called—*Judaicum*, and—*è Mecha*, from the places whence it is brought; and *Oleum Balsami*, and *Opobalsamum*, for the great esteem it hath held with some writers; it being an exudation from the true *Balsamum Syriacum Rutæ folio* of C. B. This is the finest balsam we know, of the consistence of a syrup, but of extremely fine and subtil parts; it is very fragrant, though of the turpentine kind. It is so greatly esteemed where it is produced, that it is accounted a rich present from the chief prince of Arabia Felix (to whom Mecha is subject) to the Grand Seigneur; as likewise to others of the greatest rank. Its price and scarcity is the reason why it sometimes comes to us very much adulterated. When genuine, it is a most noble medicine. It wonderfully opens obstructions of the lungs, and heals erosions from acrimony, and the worst kind of ulcerations. There is nothing exceeds it in humoural asthmas; and whatsoever else requires expectoration. It cleanses the urinary passages, through which it readily passes. It easily mixes with watery liquors, if it is first triturated with a thick mucilage of gum arabic.

MASTICHES, Mastich. This is a resinous gum of the *Lentiscus* tree. *Pistachia Lentiscus*. Linn. It grows chiefly in the island of Chios; it is in small *granulæ*, transparent and white, if good; though age makes it turn yellowish. It hath an agreeable flavour, particularly when heated or set on fire. It stops cattarrhs, tickling coughs, spitting

spitting of blood, and blunts the acrimony of the humours. It is very strengthening to the reins, as well as cleansing; and is a good ingredient in prescriptions against feminal weaknesses, gonorrhœas, and the whites. But it is so much of the turpentine kind, as to deterge, and pass by urine.

TACAMAHACÆ, Tacamahac. This is a resinous gum, from New Spain. It distills from a tall tree not unlike the poplar; distinguished *Populus similis fructu, colore ^oæoniæ seminis*, by John Bauhine; *Populus Tacamahacca*, of more modern writers; and called *Iecomhacca* by Hernandez; and differs not much from the galbanum; but is of a more pungent and acrid scent; which makes it too offensive to be much used inwardly. The ordinary kind is in semi-transparent globes, of a whitish, yellowish, brownish, or greenish colour. It is reckoned good, being burnt upon coals, for hysterical fits in women; and likewise applied to the belly in the form of a plaster. It is by some applied to the temples in the same manner and to the nape of the neck for pains of the head, fluxions of rheum upon the throat, and inflammations of the eyes; as also in the tooth-ach. It is of so subtle and penetrating a nature, that it is greatly used in external applications, to suppurate or dissolve tumours; and is accounted effectual even in those which are scrophulous. It is likewise applied to assuage arthritical pains with success. Indeed the Indians use it for all kinds of pain, according to the report of Monardes; and Schroder affirms, that he has known intolerable pains in the leg removed by it. The finer sort

is in shells, and of an agreeable odour.

OPOBALSAMUM. This is the same as balm of Gilead.

SAPo, Sope. This, strictly speaking, is rather a composition than a simple. It is made by an incorporation of oil, or fat substances, with alkaline lixivium. Those kinds which are most appropriated to medicinal purposes, and given inwardly, are from Venice, or from Castile. This drug is of a penetrating, cleansing nature; and readily mixes with animal fluids of any kind; wherein, by the subtilty of its parts, and the asperity of its salts, somewhat softened with oil, it penetrates and deterges the most minute passages. It divides and rarifies the most obstinate and viscid grumes, so as to fit them for expulsion. For this reason it is good in all obstructions of the viscera, and infarctions of the vessels; and is particularly diuretic. But its most celebrating virtues are cleansing the liver in the jaundice, in which case there is not a better medicine in the world, if the patient does not spit blood: which, for reasons too long to insert here, is a symptom in the jaundice of a desperate case; and this medicine, given in such a symptom, would rather increase it. This is capable of being given in many convenient forms, as pills, or draughts; for it easily dissolves in boiled milk, or any other liquor.

Triturated with oily, or with resinous matters, it renders them miscible with water. Boerhaave generally mixed it with resinous medicines when formed into pills, in order to their more speedy solution in the stomach. The efficacy of

of soap is often considerable on the human calculus. See Mrs. Stephens's medicine, in the appendix.

The soft soaps are more penetrating and more acrimonious than the hard, and are only used in external applications.

TEREBINTHINÆ omnes, all the Turpentine. There are abundance of plants and trees of this kind, which are most of them green the whole winter. They are different species of the *Pinus* and *Tiſſachia*. As for flavour or scent, there are of this tribe from the most fragrant and aromatic, through the several degrees, to the most rank and fetid; and from the softest and smoothest, to those which are very hot and deterſive. All these are more or less good in the forementioned intentions, of cleansing the viscera, in proportion to their heat and deterſive qualities; which are to be distinguished by their quickness and warmth upon the palate. For the uses of these externally, *vide* Sect. XII. Class 3. See No. 569.

Cortices, Barks:

BERBERIS, Barberry. *Berberis Vulg.* Linn. The fruit of this tree is acid, cooling, and astringent; and of singular efficacy in bilious fluxes, and other diseases from heat and acrimony, or thinness of the juices. The bark is opening and deterſive. That part which grows nearest the tree is bitter, and most valued. The outward bark of the branches, and the leaves, have an astringent acid taste.

CAPPARIS, Caper. *Capparis Spinosa.* Linn. This is an exotic, whose buds, sent over to us in pickle, are so much used in com-

mon sauces. The bark is in some few compositions under the same intentions as the former; but is hardly known in extemporaneous practice.

EBULI, Dwarf-elder. *Sambucus Ebulus.* Linn. called also *Chamaeacte*, and *Sambucus humilis*. It grows in highways, and flowers in June. The inner bark is much esteemed in the jaundice, and reckoned likewise a great purger of watery humours; for which reason it is given amongst hydragogues; and is found to be very diuretic. All the parts of this plant are too violent in their operation for general use.

SAMBUCI, Elder. *Sambucus Nigra.* Linn. The inner green bark is gently cathartic, if taken in the manner of an infusion in wine.

TAMARISCI, Tamarisk. *Tamarix Gallica, vel Narbonensis.* Linn. It grows in France, and chiefly about Narbonne; for which reason, by some hotanists, it is distinguished — *Arborea Narbonensis*. Both the leaves and the bark are moderately astringent.

Radices, Roots of.

ARI, Cuckow-pint; distinguished — *Vulgare* by Gerhard. *Arum acule foliis hastatis integerrimis, spadice clavato* Linn. It grows in hedges and shady places. This plant appears very early in the spring. It is most violently pungent and volatile; inſomuch that the least touch of its juice upon the tongue, is scarce tolerable, and almost caustic. This quality makes it recommended in all viscidities, and in phlegmatic and scorbutic cases; because it penetrates and rarifies tough concretions and infarctions of the glands and capillary vessels. In

chlorotic complaints; weakness of the stomach occasioned by viscid phlegms; humoural asthmas, and obstructions of the bronchia, it is very useful; and, by the great force and activity of its parts, it breaks through and wears away those little stoppages in the extremities and cutaneous glands, which occasion itching and scabs; and is therefore justly ranked amongst the most powerful antiscorbutics. Miller observes, that the roots are generally gathered in spring, when the leaves are in full vigour, that the roots shrink, and soon lose their pungent quality; but those which are taken up when the leaves decay, will continue good a whole year, and retain their pungency the same as when first taken up. When stimulating medicines are proper, which at the same time increases the secretions, as in some species of asthma and dropsy, this root will be serviceable. In rheumatism of the fixed kind, that are deep seated, it gives great relief, in which cases from ten grains to a scruple of the fresh root is to be given, two or three times a day, mixed with some unctuous or mucilaginous substance.

CEPARUM, Onions. *Allium sepa scapo nudo inferne ventricoso longiore foliis teretibus.* Linn. Onions differ from all the other bulbous rooted plants, in having single roots, or such as cannot be parted so as to encrease the plant; whence they were formerly called *uniones*. Onions are frequently employed in food: they afford little or no nourishment, and when eaten liberally produce flatulencies, occasion thirst, headaches, and turbulent dreams: in cold phlegmatic habits, where viscid mucus abounds, they doubtless have their

use; as by their stimulating quality they tend to excite appetite, attenuate thick juices, and promote their expulsion; by some they are strongly recommended in suppressions of urine, and in dropsies. The chief medicinal use of onions in the present practice is in external applications as a cataplasm to suppurate tumours.

CURCUMÆ, Turmeric; called *Cyprus Indica*, by Gerhard, and is brought to us from the East Indies. There are two sorts, the long and the round; the former is used in the shops. *Curcuma Indica, foliis lanceolatis, nervis lateralibus numerosissimis.* Linn. Its taste is bitterish, and inclining to acrid; and therefore it must attenuate, open, and discuss. It is also esteemed a specific in the jaundice and dropsy.

FILICIS, Fern. Of this there is a male, distinguished *Mas non ramosa dentata*, by Caspar Bauhine; which is reported a specific in the rickets; and the female, distinguished *Ramosa major, pinnulis obtusis non dentatis*, by the same author. The *Filix Florida*, or *Osmunda Regalis*, is a species of the latter; but notwithstanding the many superstitious conceits concerning the medicinal virtues of these, the present pharmacy gives no credit to them.

GLYCYRRHIZÆ, Liquorice; distinguished—*Siliquosa radice repente*, by the Bauhines. *Glycyrrhiza leguminibus glabris stipulis nullis, foliolo impari petiolato.* Linn. It grows in many parts of Europe, and we have enough of it in England for our own supply, although a great deal of its inspissated juice is imported. Its chief place of growth is here about Pontefract, in Yorkshire. It is also cultivated about London; especially in the fields

fields near White-chapel, and Well-close-square. It is very sweet upon the palate, even more than sugar and honey, and yet it quenches thirst; for which reason alone, Galen ordered it in dropfies. It is very balsamic and detergent; in so much that there is hardly any officinal medicine, or occasional prescription for any of the distempers of the breast, but what have more or less of this for an ingredient. It is in great esteem in coughs of all kinds; it promotes expectoration, and is serviceable in asthmas, and difficulties of breathing. For these intentions it enters into pectorals of all forms. It is almost as constant likewise amongst the deobstruents; and is prescribed in the jaundice, in hypochondriacal affections, and amongst diuretics. It has its share also as a corrector of some cathartics; and infusions of senna and rhubarb are scarce ever ordered without it. Its inspissated juice is the most convenient form to keep in the shops, for most purposes: but what is made here from our own roots, is much the best; although what comes from abroad is cheapest, and therefore most frequently to be met with.

ENULÆ CAMPANÆ, Elicampane. It passes also by the name of Helenium. *Inula foliis amplexicaulibus ovatis, rugosis, subtus tomentosis, calycum squamis ovatis.* Linn. This grows in many places of England; but not by much in such plenty as in Germany, according to the writers of that country, where they make a wine of it, which they have in great esteem: and Platerus, for its spicy taste, calls it the *Aroma Germanicum*, for as such they prefer it to ginger. It is very warm, opening, and deterfive;

and is reckoned of great efficacy in cleansing the lungs; it promotes expectoration in coughs and humoral asthmas; Dr. Hill, asserts, that a decoction of the fresh roots, sweetened with honey, relieves the whooping cough; besides which quality, it has also somewhat so glutinous, tenacious, or adhesive, as makes it serviceable in washings. Some think its warmth promotes perspiration; and for that reason commend it after a course of mercurials in venereal cases, to carry off the dregs, as they term it, of the mercury. This simple is capable of being reduced into almost any form: but the conserve is the most common, and probably the best; for boiling will be apt to dissipate and waste a great deal of its most subtile and fine parts.

LAPATHI ACUTI, Sharp-pointed Dock. This is called also *Oxy-lapathum*, and distinguished *Folia acuto plano*, by C. B. *Rumex acutus floribus hermaphroditis; valvulis dentatis graniferis, foliis cordato oblongis acuminatis.* Linn. It is frequently in occasional prescriptions for the jaundice and scorbutic cases; and found very efficacious for such intentions; being a powerful detergent. Willis commends it as an excellent antiscorbutic in diet-drinks, and medicated ales. But its most celebrated virtues appear in external compositions, for cleansing the skin from scabs and tetters: and we have an unguent that takes its name from it. Et-muller extols it greatly in such cases; but down to this time they have all been ignorant of the neat, safe, and efficacious preparations which mercury has furnished for those intentions. There are many other species of this taken notice of by botanists, and used in medicine;

par.

particularly the—*Præstantissimum*, *Rhabarbarum dictum*, which is the shop Rhubarb; the—*Hortense latifolium* of Casp. Bauhine, Monks Rhubarb; and the—*Aquaticum*, called *Hydrolapathum*, Water-dock, supposed to be the *Britannica* of the ancients; and a specific in the scurvy; its root being made into a decoction with water; and the liquor used as a diet-drink. This last is the *Rumex floribus hermaproditis; calvulis integerrimis nudis, foliis cordatis glabris acutis*. Linn.

PENTAPHYLLI, Cinquefoil; distinguished by the Bauhines, *Quinquefolium vulgare, majus repens*. *Potentilla reptans*. Linn. It is astringent, and relieves coughs which arise from catarrhs; it is given internally against diarrhoeas; and is used in gargarisms, to render them less spongy.

POLYPODII, Polypody. *Polypodium vulgare*. Linn. It grows, in an odd manner, out of old walls, and ruins; as likewise out of many trees; but that from the oak is reckoned best. This is placed by many Dispensatory writers amongst the cathartics; but its power, that way, is no more than what is common to most of this class of detergents.

PORRI, Leeks. *Allium Porrum*. Linn. These are so much like onions, mentioned above, that there needs little farther explication of their virtues; only they are somewhat of a ranker scent, and rather more deterfive.

RHAPONTICI, Rhapontic; distinguished—*Folio Lapathi majoris glabro*, by Casp. Bauhine; which is the Rha and Rheum of Dioscorides. *Centaurea Rhapontica*. Linn. It has a large root, thick at the head, divided into several branches,

of a dark brown on the outside, and of a deep yellow within; and of a bitterish taste. If this root be carefully dried, it nearly resembles the fine Turkey Rhubarb. This is what ought to be used in the shops as being the true Rhapontic; whereas that formerly sold for it, was the *Rhaponticum folio Helenii incano* of Casp. Bauhine; which is a species of the greater centaury; and much inferior in virtue. The true rhapontic is a weaker purgative than rhubarb, but held more astringent; proper in fluxes, spitting of blood, bloody urine, and weakness at the stomach.

RUBIÆ TINCTORUM, Madder. *Rubia foliis annuis, caule aculeato*. Linn. This is a root so much used in the dyers business, that it takes their name. It is round, branched, as thick as a small goose-quill, and of a reddish colour, having a slender, tough string in the middle, of a sweetish taste, mixed with bitter. It is planted in fields and gardens, and flowers in May. It is powerfully detergent and aperient, whence recommended in visceral obstructions, and in coagulations of blood internally from bruises, and in the jaundice, and beginning of dropsies. From its tinging the most solid bones of animals that feed on it, it is evidently of subtil parts, whence its medical virtues demand inquiry.

SAPONARIÆ, Sope-wort. This is a species of the *Lychnis*; distinguished—*Major vulgaris simplex*, by most botanists, and particularly in Herman's Catalogue. *Saponaria officinalis, calycibus cylindricis foliis ovato-lanceolatis*. Linn. It grows in water-currents; and flowers from July to September. It is opening and deterfive in a great degree;

degree; insomuch that it sometimes procures a plentiful diaphoresis. It is of service in asthma, and all disorders of the breast which require expectoration. Outwardly likewise it is commended for discharging and suppurating tumours. Stahl deems it superior to the *sarsaparilla* in the lues venerea.

Of Animals.

Class 2.

VIPERÆ, Vipers. Schroder, and many other Dispensatory writers, speak of this animal under the general name of serpents. It is impossible even just to hint at the many odd opinions which have been by some one or other propagated concerning the viper; both as to its medicinal virtues, and the nature of its poison. The general opinion at present is, that they are highly restorative, and that they provoke venery; but that they really differ from other nutritive diet, is nevertheless a reasonable doubt. The fat, which comes in plenty from the entrails, is reckoned that secret whereby our viper-catchers prevent the mischiefs of a bite from them. The method of using the fat for this purpose, is to rub some of it as soon as possible upon that part that is bitten; and to repeat the operation, once or twice, at the distance of half an hour or less. It is much commended by some in strumas; as likewise in dimness or decay of sight, gently to rub the eye-brows with it. Their *cuticulae*, or skins, which they yearly shed, are ordered for some purposes; but there does not seem to be much in them. Yet some have found the secret, to make them turn to very good account in medicine.

LIMACES, Snails. These seem to be much more in use now than formerly. They abound with a slimy adhesive juice; and therefore are experienced very good in weaknesses and consumptions; especially in children and tender constitutions. They are best boiled in milk, or some such liquor. They are conveniently enough brought into the form of a syrup. The common way amongst the good women of tying them up in a bag with sugar, and letting the liquor drop through, seems to be the best; though it is to be feared, that the sugar is not very agreeable to substances of such a texture, and whose efficacy consists in the soft adhesive quality of their parts; because it divides them, and makes the mixture more deterfive, and less nutritive; which is the main intention of all under this class. How conveniently they are to be managed by distillation, we shall more properly consider in the next part.

LAC VACCINUM, Cow's-Milk.

ASININUM, Ass's.

OVINUM, Sheep's.

CAPRINUM, Goat's.

What these are in food, is known enough to all, but they likewise often come under medicinal consideration; and are prescribed as proper to alter a sharp thin blood into a crasis more soft, balsamic, and nutritive; and in constitutions where they agree in the first passages, they cannot but be proper for such an end; because they are already prepared into nourishment, as far as is required for their admission into the blood. All that is done in the *primæ viæ* to our common food, is by reducing it into chyle, which is a kind of milk: But where the juices are very sharp,

sharp, and the glands of the stomach over-charged with them, they are very apt to turn these substances into curd. By this means, the serous or thinner part soon changes into the same condition as the juices which join with it; and the most nutritive part is hardened into a substance, which will be so far from admitting any nourishment through the lacteals, that it is a chance if the peristaltic motion of the bowels is sufficient to procure its ejection by stool. Where, therefore, milk, of what kind soever, is ordered in consumptions, and as a restorative, it is with very good reason joined with the testacea, and such things as are proper to destroy those acidities. As for the difference of milks, from the different creatures which produce them, there seems as much owing to their different food and manner of living, as to any specific difference in the creatures themselves. That which is most common in our food, cow's-milk, seems to be of the most substance, and the most nutritive of all. In the use of these, there is a great deal in being more or less accustomed to any particular sort; for at first, with many, it is frequently purgative; but this does not continue. In short, experience is the best guide in these courses; and physicians of the best skill and penetration sometimes are balked in their expectations from their use. There are some other intentions likewise for which milk-courses are directed, besides that of a restorative; for they are gone into frequently as correctors and sweeteners: but they must be very indifferently acquainted with the *Materia Medica* who trust to such aids in those cases; or the patient's case must

be mighty peculiar and difficult, which will admit of no other means; although these are certainly good helps, together with more effectual means.

SPERMA CETI, Parmasity, improperly so called; an unctuous flaky substance, of a snowy whiteness, a soft butyraceous taste, without any remarkable smell: prepared from whale oil by boiling and purifying it with alkaline lixivium.

That Parmasity, or *Sperma Ceti* (for they are both arbitrary names, and equally improper, *Adeps* or *Oleum Ceti* being more expressive of the thing signified) is the best, which is whitest and sweetest, that is, freest from rancidity. It is a noble medicine in many cases, tho' chiefly used in bruises, inward hurts, and after delivery. It is an excellent balsamic in many distempers of the breast; and gently deterges and heals. In coughs from sharp rheum, crosions, and ulcerations, it is very safe, pleasant, and effectual; where the mucus of the bowels has been abraded by acrimony and choler, as in diarrhœas and dysenterics, this is a very good healer. In ulcerations of the kidneys and bloody urine, it is likewise a very suitable medicine; and by softening and relaxing the fibres, it contributes frequently to the expulsion of gravel, by enlarging the passages. It is most conveniently made up into the form of electaries and boluses, with proper conserves, and things of the like kind: and in such forms, if it be skilfully mixed, it gives them an agreeable smoothness: with the yolk of an egg, or with the mucilage of gum arabic, it dissolves into a fine smooth emulsion. In liquids, it is not to be mixed, unless

unless in linctuses and eclegmas; where it does well enough. It is emollient and healing, outwardly used; but its greatest use that way is in the small-pox, melted with oil of almonds: with this the pustules are just kept moist when they begin to harden; and it wonderfully prevents those scars they are apt to leave, by softening and healing them up smooth. Although this is but a modern practice in this distemper, yet Schroder takes notice of its use in his time, in smoothing and filling up the fissures and cavities made by blotches or scabs.

Class 3.

LUMBRICI TERRESTRES, Earth-worms. These are often used in compositions for cooling and cleansing the viscera. They are accounted much of the same nature with snails; but they seem to have more of an earthy or nitrous salt; which makes them afford parts more penetrating and deterfive.

Of Minerals.

Class 4.

LAPIS HIBERNICUS, Irish-Slate. It is a black, softish, flaky stone (not much unlike what is called Coal-stone) that comes into the shops under this name. Its efficacy in medicine does not appear to have reached far; and in our own country, it seems only in esteem with the common people, who have a mighty opinion, from custom, and its frequent use in such cases, of its healing virtues in bruises, and inward injuries. It is an argillaceous earth impregnated

with sulphur, and with iron, It is somewhat astringent. Boerhaave calls it an ore of alum.

SULPHUR CABALLINUM, Common Brimstone. This is little used but in the flowers, which are made by sublimation: though some esteem it more when crude in particular intentions; as having then more salt in it, and consequently being more deterfive. This is used in little else besides unguents for the itch, and such cutaneous eruptions, in which it is a good ingredient, but a very stinking one. See more under its preparations at the latter end of this part. Sulphur is found native in several countries, sometimes in transparent pieces of a greenish or bright yellow colour; but more commonly in opaque grey ones, with only some streaks of yellow: this last is the *Sulphur Vivum* of the Edinburgh Dispensatory; but that which is usually met with in the shops is only the dross remaining after the sublimation of sulphur for the flowers.

Class 5.

PISSELAËUM INDICUM, or *Petroleum Barbadosense*, Barbadoes Tar. It has a strong scent, not unlike the common tar, and is not very pleasant to the sight or taste: but it is certainly a good balsamic, and, where the stomach will dispense with it, will do great service in some disorders of the breast. It is effectual in obstinate tickling coughs, and sometimes succeeds where more elegant medicines have failed. The same has been experienced of our common tar. This petroleum flows from the rocks into a river in Barbadoes, and is taken from the surface of the water.

Some commend this in burns, scalds, and inflammations; but the regular practice does not much justify any such use externally. Amongst the country people it is in mighty request for scald-heads; which is a tiring troublesome enough to cure, and often puzzles a good physician. It is with some also a secret to apply to the soles of the feet in agues, as also to the wrists; and I have known instances where it has succeeded. That medicine commonly sold by the name of Oil of Spike, is nothing but oil of turpentine tinged with this simple. The purest kind of this mineral substance is called *Naptha*, a less pure is called *Petroleum*, and the least pure, which is also more consistent, is called *Bitumen*.

SAL COMMUNE, Common Salt, It is needless to say what use this is of in diet. In medicine, strictly speaking, it is of very little use. It is sometimes used to check the operation of emetics; which it will certainly do, and make them run off by stool. The reason of which we shall better understand, when we come to consider the operations of the medicines which fall under that denomination. It is likewise sometimes used to quicken the operations of glysters; which it does by irritating the fibres of the rectum; and thereby soliciting that motion, which forwards the expulsion of its contents.

SAL GEMMÆ. Thus the same salt which is diffused in the waters of the ocean is called, when found in the bowels of the earth, as in the salt rocks in Poland, &c. also those at Nantwich, &c. in England. Its qualities are the same as that from the sea, or the common salt.

HYDRARGYRUM, Quick-silver. This is a metallic mineral found in mines, sometimes fluid, and sometimes mixed with other mineral matters; from whence it is separated by distillation. It comes next in specific gravity to gold. It is often adulterated with lead; in which case, it cannot safely be trusted for internal use. The way of separating it from the lead, or other heterogeneous matter, is by distilling it in a retort, either *per se*, or with the addition of quicklime, &c. When pure, it appears perfectly bright, and will totally evaporate upon an ignited fire-shovel, or the like. The use of mercury in medicine was not known till the latter end of the sixteenth century. The ancients looked upon it as a corrosive poison, though perfectly void of acrimony, taste, and smell. There are many examples of its having been lodged several years in cavities both of bones and fleshy parts, without its having injured or affected them. Taken into the body in its crude state, and undivided, it passes through the intestines unchanged, and has not been found to produce any considerable effect. It has indeed been exhibited in asthmas and disorders of the lungs; but the virtues attributed to it in these cases have not been warranted by experience.

Notwithstanding the mildness and inactivity of crude quicksilver undivided; when resolved by fire into the form of fume, or otherwise divided into very minute particles and prevented from re-uniting by the interposition of proper substances; or combined with mineral acids; it has very powerful effects; affording the most violent poisons, and the most excellent remedies

medies that we are acquainted with. It is reckoned by some very powerful in killing of worms, only by being boiled in water; and that, although it communicates

such a wonderful efficacy to the water, it loses nothing perceivable in its weight by such boiling. *Vide* Prepar. of Mercury.

S E C T. V.

Of Diuretics.

UNDER this head will be examined those simples whose most remarkable properties appear in their increasing the discharge of urine; or which are supposed to have any power in removing obstructions in the urinary passages, from what cause soever, whether humours or gravel.

The best way to understand how a medicine operates to answer his intention, will be first to consider by what means it comes to be wanted. This must happen either from a fault of the passages, or of the liquid which ought to make its way through them. The passages may be in fault from any cause which contracts them, and draws them up too strait; which of course lessen their diameters, and will not let particles through, of the same bulk as they would before: and they may also, in their natural capacities be obstructed by the casual intrusion of particles too big to go forward; or by the concretion of particles attracting one another in their progress. The fluid also which ought to go off this way, may be prevented by its grossness; and by being united with other particles too bulky for those outlets.

In this view, diuretics come under these following kinds. They

are either such as soften and lubricate the fibres, that compose the urinary glands and canals; by which means they yield and relax into their due dimensions and capacities; and of these kinds are many of the emollients, Sect. IV. Class 1. already explained: or they are such as, by their attenuating and deterfive properties, rarify and thin viscid humours, and adhere to and carry them along with them in their passages; which those of the fourth class of the same section have been shewn to do, and upon that account prove diuretic: or again, they must be such as have a power of altering the crasis of the humours; so as to fit those to pass, which could not get through before: and this remains yet to be explained, and has particular regard to most of the simples collected under this section.

Without venturing out too far, for the compass here allotted, into the nature of secretion, it may be proper to take notice, that the thinner separations increase in proportion to the blood's velocity; for the swiftness of its motion not only keeps the parts more divided, but also brings them oftener to the secretory orifice; which every

where is what takes off the thinness of the blood at that part; some of the viscid and thicker secretions requiring, for the same reason, a vast check of the blood's motion, before they can be performed; that is, before the blood has obtained such a consistence, by the slowness of its motion, that what is to be separated is the thinnest at that part; for no other will go off any where. If therefore from any cause the blood does not move with its due velocity; its parts will attract one another, and make the whole too thick to part with any thing by the kidneys, or so much as it ought. Nature indeed seems particularly to have provided against this inconvenience, by so near a situation of the kidneys to the heart, that the blood's motion cannot be retarded when it comes to them, unless it moves slower through the heart itself. In this case such things prove diuretic, which not only forward the blood's motion by their irritation of the solids, and quickening their vibrations; but are so subtle as to keep the blood in as fluid a state as possible. Many things therefore under the first class of the first section come into this rank; because their volatility gives them such properties. But besides the smallness and aptitude to motion of some parts which keep the blood fluid, there are others which do it by their roughness and rigidity; for thereby they hinder such particles of blood from coming into contact, which would make them cohere; and such are of the nature of alkaline and lixivious salts; which, for this very reason, in all sluggish and viscid habits of blood, prove diuretic; and procure some-

times very large discharges by urine.

Another way of forcing urine, is to increase the quantity of such salts in the blood, as seem fitted, by their specific gravities, to pass more easily by the kidneys than any where else; for the largeness and swiftness of the stream in which the blood comes to them, cannot admit of a separation of any particles but such as are small and heavy, of which kind are all nitrous and acid salts. For these, joining with the serum, cause it more plentifully to attract and unite the salts dispersed in the blood, and help the sooner upon that account, viz. by adding to their gravities, to determine them thro' their kidneys into their bladder.

But such seem to be the most natural and safe medicines for this intention, which have in their compositions salts nearly of this kind, and somewhat, at the same time, so emollient, as to guard them against vellicating the membranes; and to lubricate and facilitate their passages, with what they take with them into their proper emunctories. Thus all of the mallow kind; and the *Syrupus de Albæa*, have a great deal of a penetrating salt wrapt up in a soft mucilaginous juice. Dr. Grew, an able physician, and a most faithful recorder of experiments of this nature, observes more salts to be in plants of this kind, than many others which seem to discover more of them to the taste. If then nature be allowed to be the best compounder, those of her productions which have these two properties so well blended together, must be the best that can be contrived for the purposes under consideration. For such plants or
simples

simples seem fitted to answer both these important intentions at once, viz. of lubricating and relaxing the passages; and of precipitating, at the same time, the proper fluids through those passages. And this may serve as a good hint, to teach us, in the use of those means which art contrived to answer the same end, not to be too busy with such things as stimulate much, and are forcing that way, lest, instead of making a passage, those irritations should contract and straiten what was too strait before; and therefore, that we always join them with such things, as are at the same time softening and emollient; that the vessels may be enlarged when a greater quantity of fluid is intended to be protruded through them.

It has been a long dispute how some things, which manifestly pass off by urine, can do it in so short a time as they are often observed; especially those of the turpentine kind: which will very soon discover themselves by their smell, wherein nobody can be deceived in the urine: but this will take up too much room in this place; and it does not seem greatly to our purpose to determine such difficulties. Some hints this way, and especially how large quantities of liquors drank suddenly, will soon make their way through these parts, may be met with in the *Explicationes of Sanctorius's Medicina Statica*.

Folia, Leaves of,

CHÆREFOLIUM, Chervil, is the *Cærefolium sativum* of Parkinson and Gerhard. *Scandix Cærefolium*. Linn. It grows in the gardens, and flowers in May. It is recommended for opening the urinary passages, promoting the menses,

and such like intentions; but is now very seldom prescribed. *Myrrhis*, sweet Cicely, is of the same kind and virtues.

FRAGARIÆ, Strawberry. *Fragaria Sylvestris*. Linn. This plant is too well known to want description: the leaves are slightly astringent, frequently used in gargarisms for sore mouths, quinries, and ulcers of the throat: and the fruit is moderately cooling and cleansing, chiefly by urine.

KALI, Glass-wort. *Salsola Kali*. Linn. This has its English name from the pungent and almost caustic salt with which it abounds, of the nature of the *Cineres Clavellati*, or pot-ashes, which is so much used in glass-making. It has no place now in medicine, unless in external application: for as it is very hot and penetrating, it is used sometimes in discutient fomentations, and by some recommended in cataplasms for arthritic pains.

OXYACANTHÆ. Under this is generally understood the Barberry, but Mr. Ray makes it the *Spina Alba*, White Thorn. For the virtues of the former, see Sect. IV. Class 4. and of the latter, under the division of fruits in this section.

PERSICARIÆ non maculatæ, Arsmart. It grows in watery places, and flowers in September. It is also called Hydropiper, or Water-pepper. It is the *Polygonum Hydropiper floribus hexandris semidigynis, fol. lanceolatis, stipulis submuticis*. Linn. It is extremely hot and penetrating; insomuch that the taste is hardly tolerable. This has made it obtain in scorbutic cases, hypochondriac affections, and all disorders from a sluggish circulation of the fluids. It is called Hydropiper from its hot and

biting taste, which arises from its essential oil dispersed in little cells all over the plant. This is the only persicaria that hath any pretensions to be an active medicine: given in infusion or decoction it proves diuretic, hence it is used in the jaundice and dropy. The seeds are insipid and nutritive. Its great warmth has also made it recommended by some in external applications; particularly to dissipate bruised blood; and some use it for the tooth-ach, as pepper and other hot things.

PETROSELINI, Parsley. *Apium foliolis caulibus linearibus, involu-cellis minutis.* Linn. This stands with most authors for a lesser final-lage; and is reckoned much of the same virtues. It is well enough known in our gardens, where it is cultivated in great plenty, and comes to us much oftener in food than physic, it being better thus used for any medicinal intention; as it is agreeable to eat in substance, almost in any thing; and as the stomach is the best preparer of such ingredients; for all vegetable substances easily resolve therein, and yield their native properties. And there is no form in medicine which can draw out the virtues of this herb to such advantage, as they reside in its own substance. This is sometimes used outwardly, by the common people in cataplasms, to discuss and resolve; which it is frequently successful in doing. There is hardly a better ingredient in our ordinary sallads; for cooling and cleansing the viscera. It also absterges much slime and viscid adhesions from the stomach and bowels; cleanses all the passages; keeps the juices fluid; and greatly assist their discharge by urine. The roots likewise are very

good in decoctions, diet-drinks, and medicinal ales, for cleansing the blood as it is commonly called; and draining off ill humours by urine. There is a *Petroselinum Macedonicum*, referred to in some compositions, and particularly in the *Aberiacæ*, where the seeds are directed; but this is so little cultivated, that the seeds of the common sort are generally substituted in their stead.

THEÆ VIRIDIS, Green-Tea. We have given some short account of this elegant exotic under the article of Bohea-Tea. But this seems to have been the sort much longest known; and is meant by most authors who have mentioned tea in their writings. It is certainly in great esteem among the natives of China, Japan, and other places which produce it, for its sanative properties: they use it almost in all their complaints; and many live to a healthful old age by its benefit. Schroder, or his editors, have been at the pains, in his account of this plant, to give its use and virtues in various languages.

This herb has prodigiously obtained in the use and esteem of most people in our own country; and it certainly deserves very great commendation. It is admirably grateful to the smell and taste; and carries an agreeable roughness along with it into the stomach; which gently astringes the fibres, and gives them such a tenacity as is requisite to a good digestion. This roughness indeed may be increased so far as to make the stomach sometimes contract and throw up its contents; for which reason it is sometimes used as an emetic: and in many cases, where the delicacy and tenderness of a constitution

tution will not admit of harsher and more nauseous doses, there is not any thing more proper: for it generally deterges the over-quantity of slime from the membranes, and leaves such a moderate restriction behind, as prevents all nauseousness, and that continual drain of irritating juices, which flows in frequently after the use of other emetics, and is hard to stop. It is wonderfully serviceable after crapulas, by gradually helping off the viscid remains which nauseate and sicken the stomach, and again by drawing up their fibres to their due tone. Its use therefore after dinner, or eating, is of great service in assisting digestion, and preventing the uneasiness which attends a full weakly stomach. It sates the blood and juices with such gently deterging parts, as keep clean all the emunctories; and is reckoned by some to carry its influences to the remotest parts, and prevent arthritic pains. The discharge it most remarkably promotes is by urine; but in some thin constitutions it is thought too cleansing; and in the excess that some drink it, it may possibly abrade and wear away the substance of the solids, as well as all humours, and thereby bring on a consumption. It likewise too sensibly vellicates the bowels of some very nice and tender constitutions, and occasions colic pains; but there are few instances of this; it being one of the best, pleasiest, and safest herbs, that was perhaps ever introduced into food or medicine; and in the frequent use of which, persons generally enjoy a confirmed health. It is best in the morning and after dinner, and not so good at night; rest and the usual posture of the body at time

not so well, favouring its most common and natural tendency.

SAXIFRAGÆ ALBÆ, white Saxifrage. The sort referred to is called — *Rotundifolia alba*, by C. Bauhine. *Saxifraga granulata foliis caulinis reniformibus lobatis, caule ramoso, radice granulata.* Linn. But there is another sort also, which comes into the shops, which is the *Seseli pratense* of Caspar Bauhine; but to both are ascribed the same virtues; denoted by the name, signifying Stone-breaker. It hath been much controverted what was the saxifrage of the ancients, which was certainly different from either of those kinds. Dioscorides describes it a bushy shrub growing on rocky places, like the *Epithymum*. Mathiolus makes it a species of *Satureia*; but Dodonæus and Gerhard takes the saxifrage of Dioscorides, to be the *Serpillum Vulgare*. It is too long to enter here into the reasons which these several opinions are supported by.

PIMPINELLA SAXIFRAGA, Burnet Saxifrage; with Parkinson, *saxifraga hircina major*; great German Burnet Saxifrage; and with Caspar Bauhine — *Major umbella candida. Pimpinella fol. pinnatis: foliolis radicalibus subrotundis, summis linearibus.* Linn. Its root is thick at the head, and branched, striking deep into the ground; of a whitish colour, and agreeable spicy taste. Its leaves are pinnated; large, narrower, and more deeply cut than those of the common burnet. The stalk grows a yard high, stiff, jointed, and full of branches. It is found plentifully in Kent; but not very common near London; whence the common burnet and meadow saxifrage are usually sold for it. It is

accounted good in the colic, weakness of the stomach, stone, and gravel, as also in the scurvy. Its roots are an ingredient in the *Pulvis Ari compositus*.

Semina, Seeds.

EBULI, Dwarf-Elder, called also *Chamaeæte*, *Sambucus humilis*, and —*Herbacea* by Gerhard and the Bauhines. *Sambucus Ebulus*. Linn. It grows in the highways, and flowers in June. This is so much of the same virtue with the several parts of the elder, as to need no farther explication than what may be found already given under them. The seeds only of this sort are chiefly esteemed for their diuretic quality; and therefore they are sometimes prescribed in dropsies, and distempers which arise from too much humidity, and a cold habit.

LITHOSPERMI, Gromwell, called also *Milium solis*. *Lithospermum Officinale*. Linn. It grows in the highways, and on the borders of plowed lands; and flowers in May. The seeds are small, hard, round, of a shining whitish colour, and of a pungent acrid taste. They are powerful diuretics, and force, by the urinary passages, very much; and are therefore very conveniently made into the form of an emulsion with barley-water, or such softening liquor, because that guards the tender parts against their pungency; which otherwise might be too sensible. Some pretend to cure agues with these, given just before the fit; but common practice does not justify any such opinion.

BARDANÆ, Burdock. *Arctium foliis cordatis incrimibus petiolatis*. Linn. This is in every one's knowledge; and some parts of the

plant are much in use amongst the country people; as the leaves for burns and inflammatory tumours. The seeds are, by all authors of the best note, esteemed extremely diuretic; and some reckon them effectual in carrying off, by those discharges, what is very much the occasion of arthritic pains, when it is once deposited upon the joints. The *Bardana major*, called also *Lappa major*, which is the *Arcium* of Dioscorides, is the sort intended in modern prescriptions. The roots are aperient, diuretic, and sudorific; decoctions of them are preferred by some to those of *sar-saparilla*.

Fructus, Fruits.

ALKEKENGİ, called also *Halicababum*; and by Caspar Bauhine, *Solanum vesicarium*. *Physalis Alkekengi*. Linn. It is cultivated in gardens, and flowers in June. The fruit, called Winter-cherries, are by some much celebrated for their lithontriptic qualities; and are said powerfully to cleanse and scour the urinary passages of all gravel, and whatsoever is apt to obstruct them; and likewise by their deterfive qualities, to be good in the jaundice, and other affections of the viscera. Four or five of the cherries are a dose, or an ounce of their expressed juice.

SPINÆ ALBÆ, White-Thorn. This is made a species of the Medlar-Tree, and distinguished by C. B. *Mespilus Apii folii Sylvestris Spinosa, sive Oxycantha*. *Cratægus Oxycantha*. Linn. Its fruit is called Haws by the country people, and too well known to want any description. There is little use made of them in medicine, and yet they have obtained a name of being very diuretic, and powerful expellers

lers of the stone and gravel. The mighty nephritic water, so much in the good opinion of the late Dr. Rateriffe, was made from the flowers of this plant, which blows in May. But whether this will be able to hold its credit by its own merit now its great promoter is gone, may very much be questioned. The receipt for that water is said to be this : take white-thorn blossoms four pounds, sherry a gallon, nutmeg an ounce, common water, *q. f.* and distil a gallon of the water.

LIGNUM NEPHRITICUM, Nephritic Wood distinguished—*Cerulea & flavo tingens* by John, and—*Peregrinum Aquam ceruleam rediens* by C. B. It is brought to us from New Spain ; and comes from a tree reckoned of the ash kind. Though the wood is hard, and coloured almost like saunders, it tinges water blue. Its name denotes its virtues, though it is but little used at present.

Radices, Roots.

ALTHEÆ, Marsh-mallows. *Althæa Officinalis*. Linn. These are much of the nature of the herb before described, Sect. IV. Class 1. but accounted somewhat more efficacious. They yield a great slime or mucilage to any decoction or infusion, which renders it very smooth and emollient ; whereby it makes the parts give way to almost any thing which presses upon them, and wonderfully facilitates the passage of any sharp particles through the minutest canals ; without suffering their points to wound and irritate the membranes. Sometimes they are given inwardly, not so much to promote urine, as to sheathe, with that mucilage they afford, the

sharpness and acrimony of the humours ; and with some I know this to be a mighty secret in gonorrhœas ; and certainly it is very beneficial in such cases, as it cannot but wonderfully heal, and guard the injured parts from those corrosive salts, which would otherwise erode and ulcerate them. The syrup in the shops, is good in the same intention ; but not so efficacious as the same ingredients in decoction only ; because the sugar is improperly mixed with all medicines of a mucilaginous nature, as has been already observed in the First Part, and will farther appear in the following. They are very emollient, and suppurative in outward applications.

ASPARAGI, Asparagus. *Asparagus Officinalis*. Linn. Almost every one is acquainted with this, as being a part of food ; and knows that the heads, which are so made use of, if eat in any quantity, will discover themselves by the smell of the urine. But the roots are yet more diuretic ; because they have more of that salt from whence they derive that quality, than any part which grows above ground ; into which it cannot rise in such plenty, as the root itself receives it from the earth. And this may, by the way, pass for a reason why most roots are more endued with this property than their plants. This is deservedly reckoned one of the five opening roots ; and is a good ingredient in all compositions intended to cleanse the viscera ; especially where their obstructions threaten the jaundice and dropsy. They are likewise good in many disorders of the breast, as operating by urine is of service in most such cases ; and are therefore with good success joined with pectorals

in many extemporaneous prescriptions; amongst which we oftenest meet with them. There are also two kinds of wild asparagus mentioned by botanists; one distinguished by Caspar Bauhine—*Sylvestris tenuissimo folio*, which grows about Montpellier in France, differing little from the garden sort; and the other—*Petre & Corrua foliis acutis*, growing in some parts of Italy; the tops of which are eat as ours here, having also ascribed to them the same virtues.

COLCHICUM, Meadow Saffron. *Colchicum autumnale purpureum*. Linn. *Folii planis, lanceolatis, erectis, &c.* *Colchicum commune*, C. B. *Colchicum Anglicum purpureum & album*, Ger. and Park. It grows wild in meadows that are rich and moist in many parts of England, but more particularly in the southern and western counties. It is a plant with two fleshy bulbous roots, the one producing from its lower part a smaller bulb, from this last arises in autumn, along a furrow in the side of the old root, a slender, hollow, transparent pedicle, widening at the top into a flower like those of the crocuses, divided into six segments, of a purplish and whitish colour withering in two or three days: from the same root next spring come forth three or four upright leaves like those of the lily, in the middle of which appears on short pedicles, commonly three triangular pods about the size of small walnuts divided into three cells full of roundish dark-coloured seeds; when the root is young and fresh it is extremely acrid and poisonous, yet may be so corrected as to become a salutary medicine; when it is old it is mealy and faint. For medical purposes it is best to use

the root when full of sap. This root digested in vinegar loses its acrimony, and communicates it to the vinegar: and vinegar is a proper antidote against its poison when taken imprudently. Its principal use is as a diuretic, and as such it is very constant and remarkably powerful. It is made into a vinegar; and more completely to moderate its natural violence, an oxymel is made thereof. See *Acetum colchicum*, and *Oxymel colchicum*.

FOENICULI, Fennel. *Anethum Foeniculum*. Linn. This is another of the five opening roots; it is often prescribed occasionally in cleansing and deterging drinks and decoctions. They are of a grateful flavour and taste; making nothing unpleasant they are put into, which many of this tribe do.

FILIPENDULÆ, Dropwort. It is questioned by some, whether this was not the *Molen* of Pliny. It is distinguished only by—*Vulgaris*. *Spiræa Filipendula*. Linn. It grows in meadows and pasture grounds; and flowers in June. The root is said to be very deterfive and diuretic, and good in tartarous obstructions of the lungs, as well as the kidneys; whereby it often relieves asthmas and difficulty of breathing. Some will have its deterfive efficacy still reach farther, and to scour even the joints; so as to prevent and ease the gout, and to clear the brain and nervous appendages from such disorders as bring on epilepsies and convulsions. But notwithstanding these aperitive properties, many will have this root effectual in checking some fluxes: and particularly that of the menses, when it is too large, and the *Fluor albus*. But we do not now meet with it often enough.

enough in practice, to warrant any of these extraordinary virtues.

GRAMINIS, Grass. The sort referred to here is the—*Caninum*, distinguished—*Spica triticea repens vulgare*, by Mr. Ray, which is the quick-grass. *Triticum repens*. Linn. The roots are much of the same kind as the asparagus; and used only in the same intentions; but not reckoned quite so efficacious.

PAREIRA BRAVA. This is the root of an American convolvulus, brought to us from Brazil, in pieces of different sizes: *Convolvulus Brazilianus, flore octopetalo, monococcus*. Raii. It is crooked and variously wrinkled on the surface; outwardly of a dark colour, internally of a dull yellowish, and interwoven with woody fibres; so that upon a transverse section, a number of concentric circles appear, crossed with fibres, which run from the centre to the circumference: it has no smell; the taste is a little bitterish, blended with a sweetness like that of liquorice. It is greatly extolled as a diuretic, against suppressions of urine, and nephritic pains. Large quantities of gravel have been voided, and also small stones, soon after its use: this effect is from its dissolving the viscid mucus, by which the fabulous matter was detained. It has been found useful in healing ulcers of the kidneys and bladder, where the urine came away purulent and mucous, and could not be voided without pain: though where ulcers are suspected the use of Bals. Capiv. should accompany this medicine. Its attenuating quality renders it useful in humoural asthma where expectoration is difficult; jaundices proceeding from thick bile. The powder of this root is from twelve grains to half

a dram for one dose; and from one to three drams in decoction.

PETROSELINI, Parsley. *Apium Petroselinum*. Linn. They are much of the nature of the herb, already described in this section; and so near the taste and flavour of the fennel roots, as hardly to be distinguished from them. They are also good, in the same manner in decoctions and diet drinks, for cleansing the viscera, and particularly the kidneys. It is also one of the five opening roots.

RAPARUM, Turnips. *Brassica Rapa*. Linn. These are much more known in food than in medicine. They are certainly very cooling and cleansing, and agreeably absterge the viscid and mucous adhesions, which often nauseate the stomach, and disorder the first passages. They afford a very innocent and light nourishment to constitutions extremely weakened; and the liquor pressed out of them, when boiled, is accounted good in hectic, tartarous obstructions, and tubercles of the lungs.

RAPHANI HORTENSIS, Garden Radish. *Raphanus sativus brevifolius*. Linn. This comes much in diet at the proper season amongst our spring fallads; but is little used in medicine. Radishes abound with a penetrating nitrous juice, which makes them diuretic and cleansing to the intestines and viscera. They have somewhat also in their own skin, which is hot and biting; both which qualities help to make them a good antiscorbutic.

RAPHANI RUSTICANI, Horse Radish, called also *Raphanistrum*. *Cochlearia offic. vel Cochlearia foliis radicalibus lanceolatis crenatis, caulinis incisfis*. Linn. These roots are in virtue very much like the scurvy-

scurvy-grafts and creffies, described in Class 4. Sect. 4. and are extremely volatile and pungent, when bruised. By this quality it dissolves and opens all little viscosities and infarctions of the vessels; but because such subtile bodies are less sensible in the larger passages and glands, where they easily get through, their efficacies are most remarkable in the capillaries; for which reason, this and all of the same tribe, are most valued for their scouring the cutaneous glands, and breaking through such little stoppages there, as occasion deformities, and all the symptoms of the scurvy. This root is also powerfully diuretic; but most when so joined with some convenient acids, which add somewhat to the weight of its particles, and determine them sooner through those descending emunctories. Upon this account the compound water in the shops, which from hence has the name of *Aqua Raphani composita*, is very skilfully ordered; the extremely subtile particles of this ingredient, with others of the like nature, joined with suitable acids, making it a noble diuretic. This root in decoction ought to be carefully managed; because its chief parts will easily fly away. Its virtues are therefore best drawn out by simple infusion; which hot water poured upon it, and shut down in a close vessel, will so effectually do, as to make it as pungent almost as spirit of hartshorn. Its great activity and warmth also make it good in all such nervous cases as arise from cold and viscid juices; and induce heaviness of the senses, or inaptitude to motion, in the same manner as mustard, and all such *stimuli*.

Of Animals.

MILLEPEDES, called also *Aselli*, and *Onisci*, Wood-lice, Sows, or Church-bugs. These are so much in the acquaintance of the common people, that they seem to be masters of their medicinal virtues; and use them in many cases without any other direction. They are by all experience found to be very diuretic and absterfive; which makes them not only frequent in prescriptions for disorders of the reins, but also in obstructions of the viscera; and in the jaundice particularly. They are good in palsies, epilepsies, and all nervous distempers: and likewise in strumas, scrophulous tumours, and inveterate ulcers. Very remarkable cures have been performed in these cases by a long use of them. They are much the best taken in substance, or bruised in white wine; the liquor being drank without settling fine; else a great deal of saline matter will fall to the bottom. These are greatly in use amongst all practical authors; and frequently to be met with in the present occasional prescriptions. Riverius gives instances of wonders performed by them in inveterate strumas and ulcers; as does also that honour to our country, Mr. Boyle, who takes notice of them for the same intention, in his *Discourse of the Usefulness of Experimental Philosophy*.

CANTHARIDES, Spanish Flies. These are sufficiently known to most people; and that their chief use is for raising blisters. They abound with a subtile caustic salt, which gives them this property. Hence, when they are applied to the skin, the heat and motion of
what

what perspires sets them in action ; whereby they penetrate the cutis, and so wound and stimulate the fibres, as to bring, according to the Bellinian doctrine, such a flux of fluids, as raises up the *Cuticula* or skarf-skin, through which it cannot pass, into a blister. But although this is the only purpose to which common practice knows how to apply them ; yet they are of wonderful efficacy in some inward intentions, in the hands of those who have skill to manage them. They extremely provoke urine ; which they do more by stimulating the parts into such motions as are necessary for the protrusion, or ejection of the water, than by facilitating its passage ; and this makes them so difficult to be given, without occasioning a strangury : for, even in blister-plasters, they send enough of their acrid salt into the blood, to have frequently this effect. Where, therefore, these are administered as a diuretic, such means are to be used at the same time, as may guard the sensible membranes from their vellications ; and such are proper in broths and emulsions. But the particular cases where these flies are necessary, and most safe to scour the urinary passages, is when they are obstructed with sloughs, and such viscidities as are apt to be washed off from the ulcerated parts ; and this frequently happens, especially in women ; for the womb is very much subject to such foulness, and stands in need of the most efficacious cleansers. In these cases, the solid parts do not lie so bare, as to be liable to the erosions of the cantharides, until they have deterged away the filth, and then it is time to leave them off ; the intention being an-

swered. There are instances of this practice in authors of the best credit. Etmuller speaks of them as good in suppression of urine, to carry off water in dropsies, in gonorrhœas, and the stone, and fabulous obstructions of the ureters : and he gives a form of their exhibition, which is an infusion of them in wine ; the liquor being poured off clear for use. Dr. Groenvelt, who published, in vindication of his own practice, a small treatise, *De tuto Cantharidum usu interno*, suffered much by a prosecution for giving them inwardly ; being charged with, and sued for, male-practice. The issue ruined the unhappy doctor ; and taught his envious prosecutors the safety and value of his practice. They are now frequently in extemporaneous prescriptions for the above mentioned intentions. But it is not every one who must think himself qualified to meddle with such remedies, which are sure to do good, or hurt, according as they are adapted. There are some ill persons who have learned to procure abortions by these flies ; and to play a great many other unwarrantable tricks with them.

STERCUS PORCINUM, Hog's-dung.

Minerals.

NITRE, Salt-petre. It is a neutral salt, consisting of an acid, less powerful than that of vitriol, and more powerful than that of sea-salt, but very different from both, and the fixed alkaline salt of vegetables ; as may be made evident from the analysis of it. It may be prepared any where, by properly exposing putrifying vegetables to the air, and washing out the salts,

salts, when formed, by a weak solution of fixed alkaline salts: but it is brought from the East Indies at a much less expence than it can be prepared here. Crude nitre was not, till lately, in common use in medicine, though it was known to be diuretic, and was by some reputed to correct the bile, assuage thirst, and alleviate inflammations and pains; but modern practice has given it a principal place amongst the capital remedies. The frequent use of it was first introduced in Germany, and since established here; where it is now regarded under the notion of an antiphlogistic, as a general remedy of every kind of inflammation; and therefore given, not only in pleurifies, quinies, peripneumonies, &c. but in every kind of fever attended with heat; and in all other disorders, either general or topical, where the least, even symptomatic inflammation, is suspected to ensue; as likewise in hæmorrhages, which it is supposed to mitigate, by checking the motion of the blood by its refrigerating quality. But, besides the extensive power of overcoming inflammations, there are others more extraordinary attributed to it: a surgeon in considerable practice has, in consequence of many trials made in a public hospital, offered it as a remedy, when taken as an internal alterative, for those inveterate phagedænic ulcers which have hitherto, in general, baffled

the art of healing: and others ascribe to it virtues not less extraordinary; so that, on one account or other, no one simple in the whole *Materia Medica* enters more prescriptions. As nitre is given in such a variety of cases, so the doses, of course, are extremely different: I have known half an ounce taken several times in a day, and in a few instances even more: an ounce taken at once produces a palsy in the lower extremities; but the general doses do not exceed a dram, and frequently reach not even a scruple. That it is of great efficacy, when given in larger quantities, in pleurifies, &c. where the inflammation is owing to a glutinous state of the blood, is not to be questioned: but whether from any specific or peculiar power, or from the solvent quality, in respect of the viscosity of the blood and humours, which it has in common with other neutral salts, is not so clear. It is certain, that all the neutral salts formed from fixed or volatile alkalies, have this febrifuge power; and perhaps it is only from a more frequent administration of nitre in this intention, that it has been supposed to have different properties and effects. But whatever nitre may perform, when given in larger doses, doubtless such trifling quantities as five, and even ten grains, which are frequently ordered, must be entirely insignificant.

S E C T. VI.

Of Diaphoretics.

UNDER this name of Diaphoretics, are included what are understood by alexipharmics

and febrifuges; because all the things under those denominations, whose operations we have any notice

rice of, exert themselves that way, by more or less encreasing a diaphoresis; which is a sensible discharge by the skin, and shews itself like a dew upon it.

All those medicines which answer this intencion, must do it either by their subtilty; whereby they divide and attenuate the humours to such a degree, that they become fine enough to escape through such small passages as those of the cutaneous glands, or else by their contracting and squeezing the solids, which force out of the extremities what lay before in readiness for expulsion. Of the former sorts are many simples; which, for their other more manifest qualities, we have placed under other heads; and chiefly among the cephalics: for all aromatic, warm, and subtle bodies have a natural tendency this way: because they cannot but divide and attenuate the fluids; which makes them fitter to go off by the smaller passages. What simples we have collected under this section, are mostly determined to the same intencion, by a like texture and disposition of parts; but then they are generally such as are seldom met with in composition or prescription for any other purpose. And without transgressing the rules laid down for determining things of this kind, it may be conjectured, that there is this difference between these and the common aromatics, that the latter act as soon as ever they come into the stomach, and by the volatility of their parts divide and thin the juices in the *primæ viæ*, but go off, in a great measure, by some of the larger discharges; whereas the former seem not to have any thing in their composition so active as to

render them sensible, until they have passed the last comminution or digestion in the circulating blood; and that there they obtain such a resolution, as suits them not only for the cutaneous secretion, but also to break, and as it were fuse the blood itself, thereby causing its thinner and serous parts to flow through the pores in great plenty. And this will not, perhaps, appear so strange, when we consider a manifest difference in our food, not unlike what we here assign to medicine. For some parts of our aliment are sooner than others broke and digested in the stomach and first offices; and such always furnish the greatest supply to the larger excretions, and go off mostly by urine; whereas others, which have subtilty enough not only to pass the lacteals, and get into the blood, but are too solid to undergo the last comminution, except by a long circulation, bestow more matter both for nourishment and the finer secretions. Those substances, or bodies, therefore, which obtain this appellation of Diaphoretic, are such as are capable of being divided into very small and fine parts; which do not sensibly operate until they are brought into the minutest vessels, where their smallness and activity fit them both to pass themselves, and besides make way for many other particles to go off with them.

But the other case of a diaphoresis, or raising a sweat, is most extensive and efficacious; and that is by squeezing and contracting the fibres, and so forcing through what is in readiness to pass; of which matter there often is a great deal in the capillaries, or just at the surface, that sometimes almost stagnates

nates for want of such shocks. All acids do this, and whatsoever vellicates and contracts the fibres powerfully. Thus you shall see people presently sweat upon eating vinegar, or lemon-juice. Upon the same account does fear, or any sudden passion, produce the like effect; as likewise all kinds of exercise. But these are not so directly our business to account for; nor likewise how sweating most commonly terminates fevers, and throws off poisons, or contagious infections; by which they come to be termed alexipharmics, and febrifuges; because this would take up more room than we have here to spare; as requiring the whole theory of fevers to be treated of, in order to arrive at a perfect knowledge of it.

Folia, Herbs.

ANTHOREÆ, Helmet-flower; called by some writers *Antithora*; who will also have it to be the zedoary of the Arabians, particularly of Avicen and Serapion. The *Aconitum Salutiferum*, or wholesome Wolf-bane of C. Bauhine, is what the officinal prescriptions intend, wheresoever this is ordered. *Aconitum Anthora*. Linn. It grows on the mountains in Helvetia and in Savoy. The root is chiefly in use; which is of a warm, bitterish taste, and reckoned cardiac and alexipharmic, much of the same nature as the contrayerva root; on which account by some it is called the German Contrayerva. Some commend, and others oppose the use of this herb: but as it hath never yet obtained generally in practice, experiments are wanting to ascertain its virtues.

CALAMINTHÆ, Calamint.

That described *Flore magno vulgaris* by John Bauhine, ought to be the officinal sort. *Melissa Calamintha*. Linn. But the scarcity of that brings to market in its stead the — *Sylvestris odore Pulegii seu Nepetæ* of C. Bauhine. *Melissa Nepeta*. Linn. The first of these flowers in June and July; as a medicine it differs but little from Spear-mint; its odour indeed is less agreeable, whence it is preferred in hysteric cases.

CARLINÆ, Carline-thistle, is the *Chamaeleon albus* of Dioscorides, — and *Acaulos magno flore*. of C. B. *Carlina acaulis*. Linn. It grows in the valleys of Germany and Italy; and flowers in June. Its root is most in esteem; and recommended for its warm alexipharmic qualities, in resisting infection, and expelling malignities. But the present practice takes little or no notice of it.

DORONICI, Leopards-bane. Mathiolus will have this to be the *Aconitum Pardalianches* of Theophrastus; but the modern botanists dissent from him in that particular. *Doronicum Plantagineum*. Linn. This grows in many places in Germany, and is said to be alexipharmic, also a specific for resolving coagulated blood, but it operates so violently, that it is rarely used. A pugil of the leaves or roots are a dose.

DRACUNCULI, and,

DRACONTII, Dragons. The *Dracunculus Polyphyllus* of C. Bauhine is that referred to here, and seems to be a species of the *Arum*; being entitled in Herman's Catalogue, *Arum Polyphyllum*, *Dracunculus* & *Serpentaria dictum*, caule maculato, majus & elatius. *Arum Dracunculus*. Linn. It is reckoned alexi-

alexipharmic, and a resister of poisons; on which account it hath a place in the plague-water.

GALEGÆ, called also *Ruta Capraria*, Goat's Rue. *Galega officinalis*. Linn. This has a great name with some authors, and passes for a powerful alexipharmic, sudorific, and a resister of poisonous and pestilential contagions; but its sensible qualities discover no foundation for any virtues of this kind; and the taste is merely leguminous; and in Italy, it is said, to be used as food.

MELISSÆ, Baum; distinguished — *Vulgaris odore Citri*, by J. Bauhine. *Melissa racemis axillaribus verticillatis; pedicellis simplicibus*. Linn. It flowers in July. This herb is very well known in our gardens. It is of a fine cordial flavour; but so weak, that in most medicinal forms it is lost; and it is hard even to dry it with its natural scent. The distilled water made from it therefore is best drawn when the plant is green; which, by the way, holds good in very few other plants: but with all the care imaginable it will soon fade, unless sprinkled with a little spirit before it is distilled. The way of gaining this water in its full perfection, is by cohobating it several times upon fresh parcels of the plant; for thus it may be made extremely rich, and of considerable medicinal virtues. The plant is a good cordial, and makes an agreeable ingredient in many alexipharmic waters. Any other form it is not fit for.

SCORDII, Water Germander. *Teucrium foliis oblongis sessilibus dentato serratis, floribus geminis axillaribus pedunculatis, caule diffuso*. Linn. It grows in watery grounds; and flowers in June and July. It

is somewhat of a garlic smell, mixed with an aromatic. It is justly esteemed a good alexipharmic, and makes an excellent ingredient in all compositions of that intention; as well as in that grand medicine of the shops, which has its name from it, *Diascordium*. This plant keeps its smell, if well dried, though reduced into a fine powder; and therefore may very conveniently be prescribed in boles, as well as infusion; which makes it strange that it is not oftener met with in extemporaneous practice, in the room of some things not by much so efficacious, or so easily to be procured.

ULMARIÆ, Meadow-sweet. *Spiræa Ulmaria*. Linn. It flowers in June. We have this amongst the best alexipharmics, in some writers, and it is called *Regina Prati*, Queen of the Meadow, and by Casp. Bauhine, *Barba capri, floribus compactis*. It has a very agreeable scent; but it does not by any great volatility of smell, or pungency in taste, seem to discover in it such properties, in so large a degree as authors mention.

Flores, Flowers.

CALENDULÆ, Marygold. *Calendula officinalis*. Linn. These blow almost all the summer. They are well known in the kitchen as well as the shops. Amongst physical writers they pass for alexipharmics, though in a much inferior degree to saffron, which it is compared to. Many also speak of them as hysterics; and we meet with them often in Riverius's practice for that purpose. The leaves of the plant are the most active part.

CROCI, Saffron. *Crocus spatha univalvi radicali corollæ tubo longissimo*.

giffimo var. Linn. These blow in September, and are of a nice culture, and a valuable commodity, growing in some parts of England, particularly in Essex and Cambridgeshire; which are the best of any in the world we have yet met with. The German writers mention, that for the best, which grows in the circle of Austria; but by their dose it must fall short of our's; for a scruple was their ordinary quantity; whereas five or six grains of English saffron, that is good, has very sensible effects. Foreign authors also speak much of this narcotic quality; and pretend, that an immoderate dose of two or three drams will bring on a particular kind of delirium (or mirthful madness) and occasion death. Etmuller gives a story of a person, who trading in this commodity, for the sake of saving some duty, concealed a bag of saffron so long under his clothes, that its steam had such an effect upon him as to kill him. It is certainly one of the greatest cordials of any simple the whole *Materia Medica* supplies; and as effectually promotes a diaphoresis; which makes it hardly ever omitted in extemporaneous prescriptions, for any species of fevers. It wonderfully assists the eruption of the measles and small-pox; and at the same time that it puts the constitution upon a force to throw off somewhat disagreeable, it enables it to sustain such an exertion. It is also given in almost all disorders of the lungs; and for its great efficacy in promoting expectoration, and relieving the breath, it is called by some *Anima Pulmonum*, the soul of the lungs. There are many forms which it is made into into the shops; but it is

much better given in substance; and is very conveniently powdered, and made into boles and electuaries. The dearth of this commodity make some draw out its tincture for a syrup; or to use by itself, and afterwards dry and powder the remainder for use. That which has not been so served, is almost of a red colour when powdered: and upon but just touching it with any moisture, it will stain extremely yellow. The colour which it gives in tincture, though deep and fine at first, will fade with keeping; and the sooner, as the menstruum is the more acid; for this reason, that which is ordered with treacle-water, and seems best fitted to answer the intention of an alexipharmic, is hardly ever made. It is generally done with canary, and such wines as are most remote from acidity; but that is only for the sake of the beauty of the medicine. This flower parts with a great deal in infusion that will rise in the still; and therefore what is sold for spirit of saffron, if well made, is an admirable cordial: and in the strict sense of the term, perhaps a greater than medicine any otherwise supplies. This way likewise there is nothing of the simple lost; because the residuum may conveniently be evaporated into an extract; in which will be retained the most deterfive parts; and will make it a good medicine in the jaundice, cachexies, and all disorders arising from obstructions and foul viscera. There are many who extol this in hysterical affections; and are of opinion, that it cleanses the womb, promotes the menstrual discharges, and assists in delivery. Some prescribe it to be worn with camphire, in a bag at the pit of the stomach for

for melancholy; and others affirm, that, if so used, it will cure agues.

Semina, Seeds of,

SESELIOS, Hart-wort. *Seseli Montanum*. Linn. Botanists describe several kinds of this plant; but the officinal sort is the same as the *Siler Montanum*; and called likewise by C. Bauhine, *Ligusticum*. The seeds have a great name with some ancient botanists and Dispensatory writers; and are mentioned almost in every intention: but they are grown into neglect in the present practice, and enter few shop-compositions except the *Theriaca Andromachi*.

VICIÆ, Tares. These are too well known to want description; and they are of no use in medicine but amongst nurses, who boil them in some drinks, to bring out the measles and small-pox.

Gummi, Gums.

CAMPHORA, Camphor. This is a pellucid gum, or resin, which does not flow from the *Laurus Camphora*. Linn. but is obtained out of its wood, by a particular way of sublimation; *vid.* Jac. Breynius in Exotic. Cent. 1. It is brought into Europe chiefly from China, and the island Borneo in the East Indies. It is totally volatile, and exhales without any loss of its parts; so suffers no loss by long keeping. It is the most efficacious diaphoretic known in medicine; its great subtilty diffusing it through the very substance of the parts, as soon almost as the warmth of the stomach sets it in motion. In all fevers, therefore, when a diaphoresis is to be encouraged, nothing will sooner raise one; but its great heat requires plentiful diluting with small li-

quors. Its smell indeed is so penetrating and particular, that it is not to be disguised in any form. In reducing it to powder, the mortar must be first rubbed with a little oil, or spirit; else it will not divide. It very readily dissolves in rectified spirit; but it will again part from it, and appear like a curd, if that be lowered with any aqueous mixture. It unites freely with water, by the intervention of gum, and but sparingly by other intermedia that render oils miscible with watery liquors. This has been in great esteem with practical authors of the best note heretofore, in all kinds of fevers, malignities, and epidemical contagions; and we shall hardly meet with any compositions for those intentions in Sennertus Riverius, or Etmuller, without this as a principal ingredient. How it comes to be so little in the present practice, is somewhat strange; for it is as safe as efficacious. But to those who appear most acquainted with this drug, there is one quality which seems but little known; and that is, that in deliria, where opiates fail of procuring sleep, and oftentimes aggravate the symptoms, this will frequently succeed, especially if joined with nitre; and as it helps forward a breathing through the pores by its warmth, it does also contribute to the same good end, by relaxing the tenacity of the fibres with rest. It has been much debated, whether this be really hot, or cold; its sense upon the palate, at first taking, persuading the former; and its usefulness, in allaying inflammations, encouraging the latter opinion. If by warmth is understood such a subtilty of parts, as disposes them to brisk motion, and to agitate what is about them,

this has as good a title to be so as any thing which is not actual fire. And for its allaying inflammations, that may be done by the subtilty of its parts, dividing and discussing so far the obstructed humours, that they either perspire, or are taken up again into circulation by the re-fluent blood; for spirit of wine, and many things allowed by all to be hot, will do this by the same means. Its dose is from one to ten grains.

GUAIACI, of Guaiacum. This gum, or rather resin, is much of the same virtue as the wood whence it is drawn, but more efficacious. It is reckoned much to promote insensible perspiration; and upon that account is good in such cutaneous cases as proceed from obstructions of the perspirable matter in the miliar glands. It is very warm and deterfive; and therefore good in all ulcerations and gleet, both internal and external. In gonorrhœas it is by some almost deemed a specific. In the gout likewise it does frequently good service; not only by detarging and cleansing the joints and mucilaginous glands from tartarous matter; but also warming and strengthening the nerves, it enables them to move with great vigor, and shakes off and prevents the lodgment of such particles upon them.

CORTEX ELEUTHERIA seu Cas-carilla. It is the bark of a tree known in Jamaica by the name of Musk-wood, and Alligator-wood. All the parts of the tree, especially the bark, smells strong of musk, and may be used instead thereof for many purposes. The Negroes use the powdered bark as an emetic. This bark is in curled pieces, about an inch in width, it pretty

much resembles in appearance the Peruvian bark, but it is of a paler brown colour on the inside, less compact, and more friable; its taste is bitter, and has a considerable share of aromatic pungency, and heat. It easily takes fire, and whilst burning it emits a fragrant odour: this peculiar property distinguishes the elutheria from all other known barks.

It is hotter than the Peruvian bark. When properly applied, it is of service in intermitting, and also slow fevers, which proceed from a fault in the stomach, or a weakness of digestion. In several instances where the usual sudorifics &c. failed, the assistance of this bark secured success: during the use of it, the patient generally sweated without loss of strength; or where it did not sweat, three or four stools were produced by it each day. In flatulent colics, dysenteries, &c. for promoting expectoration it hath been used with success.

CORTEX PERUVIANUS. Jesuits Bark, as it is called, from its being brought into Europe from the West Indies, by some missionaries of that order. It is the bark of the *Cinchona panicula brachiata vel arbor febrifuga Peruviana*. Linn. The power which this medicine has, of curing (almost generally, agues and intermitting fevers) is too well-known, to leave room for doubt. But in symptomatic agues, hectic, and purulent fevers, cacochemic habits, and where the hypochondres are swelled and distended, this medicine is improper, and for the most part prejudicial. Its manifest astringency forbids its use in obstructions of the abdominal viscera, or suppression of any critical evacuation; until the ob-

obstruction is first removed, or the evacuation had its due course.

In acute, inflammatory, or malignant fevers, the bark does not seem to have any good effect. Nevertheless, in the decline of long nervous fevers, or after a remission, when, from bad habit, old age, fatigue, or the like, the patient is extremely weak, and the pulse low, the cortex proves a medicine of excellent service; provided that there is no extravasation, that the vessels remain entire, and the pus is not already formed.

Peruvian bark has likewise been found eminently serviceable in gangrenes and mortifications, proceeding either from an internal or external cause. In all the cases of this kind, where it proved successful, it occasioned a kind suppuration, which degenerated when the use of the medicine was discontinued, and again turned kindly upon resuming it. Some have been hence induced to exhibit the cortex in variolous cases, where either the pustules did not rightly suppurate, or the petechiæ shewed a disposition to a gangrene; and here likewise it answered the expectation: the empty vesicles filled with matter, the watery sanies changed into thick white pus, the petechiæ became gradually of a pale colour, and at length disappeared, and the pock began to turn sooner than was expected. See the Edinburgh Medical Essays.

The bark has been applied likewise, and not without success, to the cure of periodical head-achs, hysteric and hypochondriac fits, and other disorders, which have regular intermissions. By its astringency and aromatic quality it strengthens the whole nervous system, and proves useful in weak-

nesses of the stomach, and sundry chronical disorders, proceeding from too great a laxity of the fibres. In obstinate uterine fluxes, and old gleet, bark joined with chalybeates has notable effects.

The virtues of Peruvian bark reside chiefly in a resinous substance, and hence are extracted in perfection by rectified spirit. Aqueous liquors gain considerable from it, without coction, by which the resin is melted out; and mingled with the water; which, whilst hot, appears transparent, but in cooling grows turbid, and deposits great part of the resin to the bottom. Water elevates in distillation the aromatic part of the bark; pure spirit brings over nothing. Hence an aqueous extract proves not only less in quantity, but likewise inferior in quality to one made with rectified spirit. Proof spirit extracts the virtues of this drug in tolerable perfection, in the cold; heat enables it to take up more than it can retain when cold. Spirit of sal ammoniac, prepared with fixed alkaline salts, gains very little from the cortex, either with or without heat; the spirit prepared with quicklime, and the dulcified spirit, in a few hours become strongly impregnated with its smell; and the bark, when given in the form of a bolus, should be mixed up with a mucilage, and not with syrup, for that makes it hang about the mouth. Aromatics do not conceal the taste of it, the extract of liquorice does it very effectually—the dose is from half a drachm to two drachms, or more.

The modern practice, previous to the use of this medicine, usually is to give an emetic at the beginning of a paroxysm: in some cases a cathartic, and in plethoric habits

venæsection, are premised: these render the bark not only more safe, but likewise more certain and speedy in its operation: where these evacuations are neglected, or not sufficiently plentiful, the disease, if not of a long standing, scarce yields to the cortex; or if it appears at length subdued, yet the patient does not recover his strength, and soon suffers a relapse. Where the fever is of the bilious kind, and accompanied with great heat, a little nitre should be joined: and in all cases, moderate exercise generally promotes its effect.

Radices, Roots:

CONTRAYERVÆ, Counter-poison. This is an exotic root, which botanic writers seem not well to agree about: Bauhine, with some others, making it a kind of cypress; and calling it *Cyperus longa*. Some also call it *Drakena*; and others make it a species of the *Granadilla*. It is the *Dorstenia Peruviana acaulis, foliis pinnatifido-palmatis serratis; floribus quadrangulis, scapis radicatis, radice dentarice*. Linn. It has a quick aromatic smell, is of a reddish colour, rough or wrinkled on its surface, and has many small fibres shooting from it. The fibrous parts of the root have but little taste or smell; the tuberos part therefore is to be alone chosen. It is much more come into extemporaneous practice of late, than it seems to have been heretofore; though not given above a scruple at most in a dose; whereas some ancient practical authors speak of a dram as a moderate one. It is very powerful in forwarding the cuticular discharges; and is therefore of great service in fevers, by promoting and keeping up a convenient dia-

phoresis. There is a good composition in the shops, which takes its name from it, called *pulvis contrayerve compositus*, and is very justly preferred to the Gascoin's powder. It is likewise second to nothing in bringing forward the small-pox and measles, where expulsion is necessary; and in all kinds of fevers, that can be relieved by increasing the discharges through the cutaneous pores.

IMPERATORIÆ, Master-wort, called also amongst many other names, *Astrantia*. The *Imperatoria* of Caspar Bauhine, is the officinal master-wort. *Imperatoria Officinarum*. Linn. These are not unlike the angelica roots in flavour or virtue. They are agreeably penetrating, and allowed by all to be good alexipharmics. They are also detergent, and good in the jaundice, cachexies, and dropsies; because they promote the secretions by urine as well as by the skin. These are not so often met with in extemporaneous prescription, as they deserve. In the *Aq. Ep.* or plague-water, they are an excellent ingredient; if they are dispensed in it in due quantity, and fresh, it gives a very agreeable predominant taste to the composition.

MEI, Spignel, generally called *Meum Athamanticum*, distinguished by C. B.—*foliis anethi. Meum Athamanta vel Athamanta foliolis capillaribus, seminibus glabris striatis*. Linn. It grows in meadows and pasture grounds, but is not often met with. It flowers in June. This has an aromatic pungency in its scent; but is also somewhat fetid. Some ascribe to it virtues which give it a place in hysterical prescriptions. It is given to promote the menstrual discharges, and remove

remove the disorders of those parts, which proceed from obstruction.

NARDI, Spikenard. We shall here take notice of two sorts, the Celtic and the Indian. The former grows in many parts of Europe; and Mr. Ray says, as it agrees in kind with the valerian, so it has the same virtues. It is the *Valeriana Celtica* of Linn. The latter comes to us from the East Indies, Alexandria, &c. called by Breynerus, *Gramen Cyperoides aromaticum Indicum*; and is much more valuable than the other. But the plant is unknown to botanists. It is esteemed as an alexipharmic; being warm and spicy, and helpful to promote sweating. Upon this account it is an ingredient in the capital and other Dispensatory compositions of the same intention. It is likewise reckoned a good stomachic, a strengthener of the fibres, and a dispeller of wind and crude flatulencies.

PEIASITIDES, Butter-Bur, distinguished by C.—*Major & vulgaris*, and by J. B.—*vulgaris, — rubens retundiori folio. Aussilago Petasites Thyrsi ovato flosculis omnibus hermaphroditis*. Linn. It grows in low grounds, and flowers in March. This is not greatly unlike the master-wort root, in pungency and flavour. It has also the virtue ascribed to it as an alexipharmic, upon which account it is in many of the Dispensatory compositions of that intention. It is likewise reckoned detergent, and good in all obstructions of the viscera, and the distempers thence arising.

PYRETHRI, Pellitory of Spain, distinguished — *flore Bellidis*, by C. B. *Anthemis caulibus simplicibus unifloris decumbentibus foliis pennatis multifidis, radice longo seruida, flo-*

re bellidis. Linn. This is an acrid root, brought to us chiefly from some parts of Italy; but it is mighty subject to decay; so that we meet with it in the shops frequently rotten and worm eaten. It is hot and very discutient, which makes it forward a diaphoresis; and it wonderfully attenuates and draws out of the fibres and glands, viscid and phlegmatic humours. For which reason it is not only used as an alexipharmic, but as a phlegmagogue, and a purger of watery humours. It is a good medicine in all cachexies, and distempers habits from too much cold and moisture; and frequently of good service in palsies, and numbness of the limbs. It is much used for the tooth-ach, to be held in the mouth; and its great heat and pungency, when so used, occasion abundance of rheum to flow out of the salival glands; which in many cases gives relief to other pains of the head besides the tooth-ach. It makes an excellent gargle by boiling in water for paralytic tongues.

SCORZONERÆ, Viper-grass, called *Viperaria Hispanica* by Gerhard, *Tragopogon Hispanicus* by J. B. *Scorzonera Hispanica*. Linn. The present practice acknowledges it only for an alexipharmic; although it is not often prescribed. It seems best suited to decoction; but it is not very palatable. In that form some commend it for bringing out the measles and small-pox.

SERPENTARIÆ, Snake-weed. This is plentifully brought us from Virginia; and thence takes its name. It is called *Colubrina* and *ri, olechia Virginiana*. *Aristolechia Virginiana foliis cordato oblongis planis, caulibus infernis superne fscuosis teretibus, floribus recurvis foli-*
tariis,

tariis, fructu parvo pentangulari. Linn. There are three roots under this name in the shops, whose distinctions amongst botanists shew them to be of the *Aristolochia* kind. But all these are by custom sunk into the common appellation of Snake-root. It is very hot and pungent, both in smell and taste. The present extemporaneous practice justifies it to be a powerful alexipharmic; and hardly ever omits it in most kinds of fevers, especially the worst and more malignant sort. Its heat is so considerable, that where it is plentifully prescribed, it requires to be well diluted with small liquors; and so managed it seldom fails to raise a diaphoresis. Its warmth also occasions it to be used frequently in nervous and paralytic cases, which proceed from too much rheum and humidity. It is an ingredient in the *Aq. Ep.* or plague-water, and its name seems to have brought it in esteem amongst many people; and to have introduced it into the closet cordials and drams; as conceived to be a great resister and preservative against infections, and what they call catching distempers.

Succisa, Devil's-Bit, distinguished, *vulgaris flore purpureo*, by Parkinson, and—*Glabra* by C. B. *Scabioso Succisa.* Linn. It grows in meadows and pasture grounds; and is a species of the scabious; it is ranked by many amongst the alexipharmics; but is seldom prescribed in common practice.

Valerianæ, Valerian. Of this there are several kinds; the *Major hortensis*, which is the *Phu Olusatris-folio* of Dioscorides, the—*Major odorata radice* of J. Bauhine, commonly called *Phu* in the shops; the—*Minor palustris* of Cas-

par, the—*Minor pratensis seu aquatica* of John Bauhine; and the—*Sylvestris Major foliis angustioribus*; the latter of which is intended in most prescriptions. *Valeriana floribus triandris, foliis omnibus pinnatis.* Linn. There are two species of this wild Valerian; the one has its root divided into many white and thick fibres, growing more downwards, and spreading less than the other; of no considerable odour when first taken out of the ground; but smelling very strong when dry. This grows in woods and drier places than the other; which is larger, higher, and more spread in its roots; with bigger and smoother leaves; and of a deeper shining green. The latter grows in watery places near ditches. They both flower in May, and are used for each other. It is warm and aromatic, but somewhat of a fetid scent. Its efficacy, as a sudorific, is supported by the testimony both of the ancient and present practice. It has been reckoned by some detergent; so much as to make it diuretic; and good in all obstructions of the viscera. It is mightily extolled likewise by some for strengthening the optic nerves, and restoring decayed sight. It sometimes does wonders in hysterical affections; especially where simples of the fetid kind are good; and the spirits are too impetuous in their motions, so as to occasion convulsions. I have known it also (assisted with camphor, and some other things of the like nature, which are very powerful in breaking through the minutest obstructions) to cure obstinate agues. It is likewise very efficacious in all nervous cases, and particularly the epilepsy. This virtue in it seems
first

first to have been discovered by Fabius Columna; who, p. 220 of his *Phytabafanos*, commends it for that purpose given in powder. Riverius celebrates it also upon the like account; which makes it a wonder that Etmuller says so little of it; who is very diligent in searching after specific qualities, and prolix enough in their commendation: for he takes no notice of it but as an alexipharmic, and a strengthener of the fight. Monsieur Merchant, in the Memoirs of the French Academy of Sciences for the year 1706, has confirmed this virtue by many instances within his own knowledge. And what appears very remarkable is, that in the two observations he enlarges most upon, the patients voided great quantities of worms. His custom was always to purge before he administered it. The *radix Phu* in the *Theriaca Andromachi*, is the root of the garden Valerian.

Of Animals.

COCCINILLA, Cochineal. This comes from New Spain, and mostly used in the dying trade; though it is also frequently prescribed in medicine; but there a little of it goes a great way. It is an insect, which breeds upon the leaves of the American prickly pear-tree, where it lays its eggs, and hatches them there, until the increasing bulk breaks through its confinement in the leaf, and lets out the young brood. Their wings and legs seem to be broken, and fitted or picked from them; nothing but the trunk of the insect being brought to market. Leuwenhoeck has pretended with glasses to discover many parts in them peculiar only to an animal; and has been

so very particular as to have described their ovaria. They who desire to be informed more concerning these insects, may turn to *Philos. Transact.* N^o 176, and 193. The use of these in medicine, is as an alexipharmic; they raise sweat, and are also accounted cordial. They make the *Pulvis Purpureus*, in Bates's Dispensatory, a good medicine; it is much preferable to the Gascoign's powder in children's little feverish disorders; as also in the small-pox and measles. It agreeably tinges the white drink, now known in almost all families, as well as the shops. Its dose is from two to six or eight grains.

SCINCI, Skinks. This is an aquatic animal, though termed *Corcodilus terrestris*, by Dioscorides. It is a kind of amphibious lizard, resembling a crocodile: but so small, that the largest are scarce above five inches long. They are found in Egypt upon the river Nile; and are covered with a fine silver scale from the extremity of the tail to the end of the snout. They have four feet, but exceeding short and feeble; so that they rather crawl than walk; they are also found in plenty in the Caribbee islands. They ought to be chose large, plump, heavy, dry, entire, and if possible untouched by the worm. It hath an alexipharmic quality ascribed to it, on which account it is in the mithridate; and a tendency to excite venery, for which it was brought into the diascyrtion, a composition now rejected by the college: but these different virtues are ascribed to its different parts; for the diascyrtion takes in the belly and back, with regard to the reins and spermatic vessels; whereas the mithridate receives the belly only. Dioscorides,

rides, Galen, Pliny, and many other ancients, were as particular about the different parts for different purposes; but Hoffman hath taken pains to shew it a needless labour; and the present pharmacy gives no reputation to such conceits.

BEZOAR ORIENTALIS, Oriental Bezoar.

BEZOAR OCCIDENTALIS, Occidental Bezoar. These are both animal substances; but Dr. Stare endeavoured to prove them factitious. Their value is chiefly determined by the colour they give to the Gascoign's powder; which makes the oriental by much the most preferable and dearest; and of that, such stones are preferred as are smoothest, small, and strike a deep green upon white paper that has been rubbed over first with chalk; which is a sure way of trying them. It is wonderful of what value these have always been reckoned; since it seems to be without any good ground. If they are factitious according to Dr. Stare, the art must be in very few hands; or the materials very scarce, to keep them up so dear. But before him most were of opinion that they were morbid concretions in an animal, in the Indies, like a deer or a goat. Schroder says they are alexipharmic, and promoters of sweat; that they are good in epilepsies, palpitations of the heart, jaundice, dysenteries, stone, and obstructions of the menses; as also that they cure melancholy, and forward delivery: and in these important intentions he assigns the dose from three grains to twelve. But we have no instances from experience to support any such practice. They have

neither smell nor taste; and upon taking into the stomach no sensation, nor produce the least perceivable effect; which is ground enough to suspect them good for nothing; although our physicians prescribe them in much larger doses than what Schroder mentions; and others have ventured half a drachm or a drachm at a time. The shops use it only in the *Pulvis à Chelis compositus*, commonly called Gascoign's powder; which though it be a dear medicine seems to be of no virtue as an alexipharmic; yet as it has often been joined in prescription with some alexipharmics of efficacy, it has the credit, amongst the ignorant, of doing what it never had any share in.

Of Minerals.

LAPIS ÆTITES, Eagle-Stone. This fossil is not easily arranged under any class. It is a tunicated mass, hollow, and containeth a loose stone; about the size of an almond shell. This has occasioned some very odd conceits; it being for this reason termed by some, *Lapis veluti prægnaus, alio in utero sonante*, that is, a stone pregnant with another in its womb. And upon this chimerical foundation it seems to have ascribed to it the power of influencing the fœtus in women. The espousers of this delusion say, that if it be wore about the arm it prevents abortion; and about the thigh, that it helps delivery: but in the latter case it is very gravely advised not to be worn too long, lest it draw out the womb itself. Even Galen and Pliny, with many others, have much given into these superstitions:

tions; and Wormius pretends to give instances of its drawing down the womb. Valeriola likewise attests the same in his observations;

but a true knowledge of anatomy will not allow of any assent to such reports.

S E C T. VII.

Of Emetics.

THAT part of the *Materia Medica* which comes under this head, although it is not so extensive as some of the preceding divisions; yet it is of that efficacy, as to require the utmost skill and caution in the management. For a vomit cannot be given without doing either good or harm: it is not therefore to be indifferently regarded as the operation of some alteratives, which are frequently prescribed only to keep the patient easy under some expectation, until a physician more clearly sees what nature indicates to be done.

Vomits and purges are so much alike in their operations, that one cannot be well apprehended without the other; thus much therefore is common to them both, that any medicine which so far vellicates the membranes and coats of the stomach and bowels, as to draw them into convulsive twitches, or much accelerate their natural motions, will be emetic or cathartic, and sometimes both. But the action of vomiting is more properly a convulsive motion in the stomach than any which can happen in the bowels; unless their peristaltic undulations are perverted, as it happens in the *passio iliaca*. Whatsoever therefore comes into the stomach, which so irritates its fibres, as to make them contract

or draw up with force, will throw its contents upwards; the vent being much larger that way than through the pylorus; which would send them down by stool. The difference therefore between an emetic and a cathartic, lies only in this, that the latter consists of such particles as pass the stomach without any violent vellications of the fibres; and the former of such as have that effect almost as soon as they come there; so that a vomit seems stronger than a cathartic: and this is the reason why a cathartic in an increased dose will prove emetic.

Some are of opinion, that the substance itself, which procured a vomit, is thrown up again in the first or second ejection; and that the following sollicitations are caused by the acrimony of the juices; which the first motions pumped as it were, and occasioned to drain into the stomach. It is of no great importance whether it be thus or not; but it is certain that the action of vomiting gives the strongest shake to all the muscles and solids of the body, that any motion is capable of; and therefore in all medicinal intentions it may be considered as an exercise. And the last reachings do generally discover a drain of humours derived into the stomach from

from some considerable distance; their colour shewing them to come from the liver, or parts more remote. But service is not so much to be expected from what these medicines discharge upwards, as from what their violent emotions and concussions fit for separation, and force through other outlets; and even that by the skin is prodigiously increased by these means, as is manifest from the profuse sweats which a person naturally falls into afterwards, upon the least encouragement thereto.

Tinctures, extracts, and resins, are always observed to operate rougher this way than more simple preparations; and the reason seems to be, that such management of an ingredient divides its parts too much, and makes them too intimately come into contact with the fibres; whence they are not so soon shook off by their convulsive twitches, or throws, as more gross parts might be. Upon this account, therefore, most of the simples which come under this head, are best ordered in their natural forms; and the elaborate preparations of the chemical pharmacy especially, produce no vomit so good as we find amongst nature's own productions: and this opinion the present practice fully supports; for all the antimonial and mercurial emetics are almost quite laid aside, unless in very obstinate cases; and some simple generally is now prescribed, only in powder, as the *ippecacuanha*. The emetic tartar likewise, which used to be so much in vogue, is at present to be found only in such hands as are strangers to milder and safer methods.

Folia, Leaves of,

ERIGERI, - Groundsel; called

also *Senecio*, and distinguished by C. B.—*Minor vulgaris*. *Senecio vulgaris corollis nudis, foliis pinnatis sinuatis amplexi caulibus, floribus sparsis*. Linn. This grows mostly upon old walls, and amongst rubbish; and is much known and used by the common people for a vomit. They infuse or boil it in whey or posset-drink: and then strain the liquor. It is a good and safe vomit; but it is not used in the shops, nor, as I ever met with, prescribed in extemporaneous practice. This plant externally applied, abates inflammations in the breasts; and dissolves scirrhus tumours.

Flores, Flowers.

PERSICARUM, Peach-blossoms. The blossoms of the *Amygdalus Persica*. Linn. These are used only in a syrup, which is directed in the former College Dispensatory. It is a very palatable and gentle medicine for children; provoking them to puke without any manifest sickness. It also most commonly gives a stool or two.

Semina, Seeds of,

CARTHAMI, Bastard-Saffron, called also by many *Cnicus*. *Carthamus Tinctorius*. Linn. It is produced by culture. These are said to purge watery and viscid humours, and deterge the mucus which frequently adheres to the inner coats of the stomach; but they are very little used in composition, and hardly ever occasionally prescribed.

Radices, Roots of,

SCILLÆ, Sea-Onions, or Squills; distinguished—*Vulgaris radice rubra* by C. B. *Scilla Maritima*, vel *Scilla nudi flore bracteis refractis*,

refractis, Linn. They are used only in infusion, generally with vinegar, which they render emetic. It is sometimes boiled into the consistence of a syrup with honey, and called *Oxymel Scilliticum* in the shops; which retains the same properties. They wonderfully deterge and scour off viscid adhesions in the bowels, and gently irritate the stomach to ejection. They are also, as all of the onion kind are, very diuretic; and therefore in great esteem with some in dropries; for if their infusion be mixed with cinnamon-water, they will seldom vomit, but work downwards and very forcibly by urine. In asthma, and all obstructions and infarctions of the lungs, which are to be removed by detergives and expectoration, there is scarce any thing more effectual. Given along with nitre, in hydropical swellings, and in the nephritis, great relief follows; the proportion of nitre may be two parts to one of the squills, dried and powdered, and the dose of the composition from gr. x. to 3 ℥, which usually passes off by urine.

IPECACUANHÆ, *Ipecacuanha*, or *Brasilian Root*. The French, since their knowledge of it, seem to have been much more diligent in learning its virtues than ourselves; Monsieur Homberg, a chemist, and Monsieur Boulduc, an apothecary, have both made analytical inquiries into its texture. It will be worth the reader's while to be informed what the latter says of it, in the *Memoirs of the Royal Academy of Sciences* for 1700. He takes it for granted, that all allow it to be a divine remedy in diarrhœas and dysenteries; and that it is at the same time emetic, cathartic, and astringent. He leaves

to botanists the description of the plant, of which it is the root; and contents himself to observe, that there are two sorts of it, the one grey, the other brown, inclining to black on the outside. The brown is more violent in its operations; though the other is more certain, as he learned from his own experience, as well as the report of others. But the gentleness of the grey has made it of more general use. He adds, that of late we have another sort brought over, which is white, and unlike the others, and which is given to pregnant women and infants, by reason of its mildness. He confined himself for that time to the examination only of the grey, referring the rest to some other opportunity. And this he does both by distillation with a retort, and by extraction with such different dissolvents as are proper and convenient. By distillation he drew off a phlegm, an acid spirit, and a little oil; and from the black mass that was left at the bottom of the retort, he was able to get but a very little fixed salt by a violent fire. It was not found worth while to take farther notice of this analysis; believing the other way by extraction to afford more light into the nature of this root. The extraction was begun with very well rectified spirit of wine; by which was drawn off its resinous part; ten drachms from eight ounces of the root. The remainder thus deprived of its resinous parts, and well dried, weighed six ounces. From this he again drew, with distilled rain-water, two ounces of an extract as solid as the former; which contained nothing besides the saline particles, accompanied with some terrestrial ones; which were

were inseparable from the others. This last was but of a lax consistence; because all the resinous parts were separated by the preceding operation. The remainder, or *caput mortuum*, thus deprived both of its resinous and saline parts, weighed but four ounces. Monsieur Bouldue believes this double extraction to be useful; viz. one by the spirit of wine, the other by the water: being persuaded that the virtue of the root did not reside alone in the resin, but likewise in the saline parts; on which the spirit of wine did not act; and whereof the water is the only proper dissolvent. It hence appears

that the root contains much more saline parts than resinous, independent of the terrestrial ones.

In another dissertation published the same year, Monsieur Bouldue gives his observations on the brown *ipecaçuana*. By distillation he remarks, that it yielded less oil than the grey; and that the last portion of spirit which comes away with its oil upon the greatest violence of fire, although considerably acid, appeared to him to have more volatile parts than the same portion of spirit in the former. He says, that by trial with salt of tartar, the particles of the brown escaped with the greater briskness, and struck the sense of smelling more powerfully. Hence he concluded before-hand, that as the brown contains less oily parts than the grey, so it contains fewer resinous; and in the second place that this last portion of spirit seems to contain more volatile parts; which is the reason that it is more violent in its effects. This observation may countenance the opinion of such as believe the purgative virtues of medicines to be exalted by means

of a certain volatile salt; and that they are more or less volatile, in proportion to the quantity of volatile salt contained in them. By extraction, both by spirit of wine and by water, that of the brown weighed less than the grey. The proportions are these; from eight ounces of the grey, he had, by spirit of wine, ten drachms of a resinous extract; but from the same quantity of the brown, only six drachms. From the remainder, thus freed of its resinous parts, by an aqueous menstruum, he drew from the grey two ounces of a saline extract; but from the brown only between five and six drachms. The remainder of the grey, after it had been thus deprived of its resinous parts by the spirit of wine, and of its saline ones by the water, weighed four ounces; but that of the brown weighed near six ounces; which shews that the active principles abound more in the grey than in the brown; which is farther confirmed by the following way of extraction. In the former he began with the spirit of wine, and then used water; but here he extracted first with water, and afterwards with spirit of wine; and observed that eight ounces of the brown yielded, by a watery menstruum, one ounce three drachms of an extract very solid and compact: and the remainder, well dried, yielded, by means of spirit of wine, but twenty-four grains of a resinous extract; whereas the like quantity of grey afforded, by an aqueous menstruum, three ounces and a half of extract; and its remainder, by spirit of wine, thirty-six grains of a resinous extract. Whence Monsieur Bouldue thinks it easy to conclude, that the brown contains less of resinous parts, and
more

more of terrestrial ones than the grey. It is, however, certain, that the brown is more efficacious, which seems a sort of paradox: the reason of which is conjectured to be, that active virtues are not to be esteemed according to the measure or weight of their bodies. Those of less bulk have often more force and energy: *vis maxima in minima Mole*, is a maxim which holds good in many instances. It has been observed, that the spirits drawn last from the brown were more piquant and struck the senses more briskly than those of the grey; why then may they not have the same activity in our bodies, to irritate the interior parts, and agitate the humours more violently? The extracts of the brown are indeed less in quantity; but their virtues may be more concentrated, and by consequence more active.

In the memoirs for 1701, this same inquirer discourses farther on the ipecacuanha; and says he has found means to deprive this root of its emetic quality. The difference that is between this and other violent purgers, he says, encouraged him in this search. The other violent cathartics, as scammony and colocynth, however prepared and corrected, leave too often fatal marks of their action; but ipecacuanha, tho' it appears very brisk in its operations, leaves generally behind it an astringency of the parts it had before opened and fatigued. He made a resinous extract with spirit of wine, and then drew out the saline part with rain water, and found, by experience, that its violence as in most other purgers, was owing to its resin. For the effects of the resin were more violent than of the root itself; leav-

ing little or no astringency afterward; but the saline extract was diuretic, purged gently, without any or little nausea; and, in short had the specific quality of the root, that is to cure dysenteries.

Thus far we thought proper to follow our French guide; whose experiments give a good insight into the contexture and virtues of this root. But the common practice here makes any preparations of it little needed; it being most esteemed and prescribed in substance. Its dose is from two to ten grains. It was first introduced as an excellent remedy in dysenteries, and other inveterate fluxes; and time hath well established its reputation in these cases: when putrescency or a faulty air accompanies a dysentery, opiates and diaphoretics are joined with ipecacuanha. The virtues of this medicine in dysenteries depends on its promoting perspiration; after puking with it two or three times, if the patient is covered warm, a copious sweat comes on. And after the removal of the dysentery by this means, it must be continued some time, to prevent a relapse; in which cases the doses must be so small as not to affect the sensible excretions. In general, when an emetic is indicated the ipecacuanha is to be preferred.

Minerals.

BORAX, Borace, is the *Santerna* of Pliny; and we have of it two kinds, native and facitious. The native is only the Chrysocolle or Tincal, calcined dissolved, and crystallized. But the manner of doing it is extremely difficult; and kept as a great secret in few hands; who

who make a profit thereof. There are also two kinds of the factitious, one made of nitre and urine, and the other, with an addition of more things, which may be seen in Schroder, but it is now neglected. Its use in medicine is but little. Taken alone in powder, it

provokes to vomit; but it is seldom used for that purpose. Its chief use is in a solution with water, to dissolve apthous crusts in the mouth and fauces, whether of children or adults, with or without fever.

S E C T. VIII.

Of Cathartics.

Somewhat may be understood concerning the operations of cathartics, from what has been already said about emetics: the vellication or irritation of the fibres and membranes being the same in both. But as the difference of the parts in which their scenes of action are, makes a great deal of difference in the consequences of their operation, on many accounts; therefore it may be farther necessary to know what a stimulus will do, in the intestines particularly.

The peristaltic, or vermicular, motions of the guts, is such as continually propels forwards their contents, from the pylorus down to the rectum. Now every irritation either quickens that motion in its natural order; or occasions some little inversion of it. In both, what but slightly adheres to the coats, or inner membranes, will be loosened and shook off, and carried forward with their contents; and they will also be more agitated, and thus rendered more fluid. By this only it is manifest, how a cathartic hastens and increases the discharges by stool. But the same manner of operation also carries

its effects much farther, in proportion to the force of the stimulus. For where it is great, all the appendices of the bowels, and even all the viscera in the abdomen, will, by a consent of parts, that is, a communication of nerves, be pulled or twitched; so as to affect their respective juices in the same manner as the intestines themselves affect their contents. The consequences of which must be, that a great deal will be drained back into the intestines, and make a part of what they discharge. And when we consider the vast number of glands in the intestines, with the outlets of those viscera opening there into, and particularly of the pancreas and liver, it will be no wonder if vast quantities, especially in full constitutions, may be carried off by one smart purge.

Farther, another way of promoting the discharges by stool from fusion, or rendering the humours more fluid, is to mix such particles with them as prevent their running into viscid cohesions; and by degrees divide and break them when in contact; whence they are rendered fitter to run off by the most convenient outlets. This is
done

done by substances which have parts rigid, gross, and full of asperities; and these are many kinds of salts and tartarous medicines. For by experiments easy to be tried, those bodies being mixed with any thing tenacious and adhesive, will destroy such properties. Thus, let any one mix a few grains of salt of tartar with the *Extractum Rudi*, which of itself is so tenacious as to draw out into any figure; and it will immediately run into almost a dry powder; and crumble so as not to be capable of being made into pills. To the quantity of this salt also in the Mathew's pill, as it is commonly called, is owing, that the mass is so difficultly made up into pills. Likewise all tenacious and mucilaginous

bodies of much thinner consistence, will, by the like means, be rendered much less adhesive, and more disposed to fluidity. Cathartics of this sort are generally too gross to pass the lacteals; and therefore their influence extends no farther than the *Primæ Viæ*; that is, the stomach and bowels. After this manner cream of tartar, with its crystals, which differ not much from the former manna, and all the milder purgers, operate; that is, by separating, and keeping from contact and cohesion, the several contents of those parts, which render them so fluid as to run off sooner, and in larger quantities by stool, than otherwise they would do.

Class 1. Of the Eccoprotic, or Milder Purgers.

Folia, Leaves of,

SENÆ, Sena. *Cassia Alexandrina*, *foliis trijugis quadrijugisve acutis, floribus luteis*. Linn. The best comes from Alexandria, and is the sharpest-leaved of any of the sorts, and smells brisk, if it be not old. The brightness of its colour, and quickness of its flavour, are indications of its goodness; for when it has lost its scent and grows dusky, it is good for little. It is one of the most common purgers in the shops, and in extemporaneous prescription. Although it is here placed amongst the milder sorts, yet in some circumstances, and especially in an increased dose, it will work smartly enough. Its dose in powder is from half a scruple to half a drachm; but it is seldom given in that manner by itself; although it is in several of the College compositions of species;

and one has the name from it of *Pulvis Senæ compositus*. In common prescription it is generally ordered in infusion, from one dram to half an ounce. Its common correctors are liquorice, some of the carminative seeds or salt of tartar: the latter gives a much higher colour to the infusion, and seems a very agreeable ingredient as a corrector; for all lixivious salts divide the resinous parts of a cathartic, whence they are not so apt to adhere to the coats of the bowels, which often makes their vellications too sensible; and they also assist in attenuating those viscidities, which a cathartic is intended to carry off, and therefore make them pass away more easily; but perhaps the best correctors are, to allow more water in the infusion, to the same proportion of the sena; or to give the infusion mixed with

some oily emulsion. This drug is apt at first taking to nauseate the stomach; and therefore in its infusion, or to the strained liquor, if a little cinnamon, or a drachm or two of its distilled water be added, it passes through with less sickness, and will afterwards operate as well. This is exactly conformable to the sentiments of Ludovicus; who says, the purgative quality of this herb resides in its mucilaginous or gummy juice, which the more it is divided, makes it gripe the less in its operation; and therefore he orders its infusion in water, or small wine, with half a dram of salt of tartar to a dose; and some cinnamon or ginger. But the dose he determines by the quantity of the menstruum, upon a conjecture that it cannot be sated under a certain degree; so that if the quantity of senna exceeds the proportion which will do that, it makes it never the stronger; the menstruum being capable of receiving no more. There are scarce any forms of cathartics in which this is not an ingredient; and it is generally the principal in purgative diet-drinks and medicated ales.

FUNGUS AGARICI, Agaric.

This is a fungus or mushroom, growing on the larch-tree, which produces the Venice turpentine. That is accounted best which is light, spongy, and white; though the best rather makes people sick than purges them; for it is extremely nauseous to the stomach; and without the help of other purgers is not strong enough to work of itself. There are many correctors mentioned by some authors for this cathartic, generally of the aromatic kind; but much the best way is to throw it quite out of the

shops; which the present practice has almost done.

Flores, Flowers of,

ROSARUM DAMASCENARUM, Damask Roses. *Rosa Damascena*. Linn. They blow in May and June; and are much used as a purge. They work gently, so as to be safe to infants in a proper dose; but it may be increased so as to make it very ruffling and strong. From half a drachm to two drachms of the leaves well dried, is the usual quantity in infusion; and of the syrup made of them in the shops, from two drachms to two ounces. In making this last, the infusion of them, when dry, is much better than the expressed juice; for in the remainder, though pressed ever so hard, there is a great deal of the purgative quality left behind, which infusion would draw out. The distilled water, therefore, which is made from them, and is a good cordial, as was before taken notice, Sect. I. Class 1. should be made by the hot still; and the strained liquor of what remains will have all the purgative quality; which may be conveniently made into a syrup.

VIOLARUM, Violets. *Viola acaulis foliis cordatis, stolonibus repentibus*. Linn. The syrup made of them is the only preparation in the shops; but it is not by much so often prescribed as formerly; although, amongst the nurses, it still remains in its wonted esteem, for a safe and gentle purger of young children. Its dose is from a quarter of an ounce to one ounce. It is never given to grown persons; because no dose is sufficient to make it a purge to them. Some have got the art of levigating the testaceous

ceous powders for the *Pulvis à Chelis compositus*, with the expressed liquor which is made for the syrup; for that changes them green, very much resembling the bezoar colour, so as to save out a great deal, if not all, of that costly ingredient.

Fruſtus, Fruits.

CASSIÆ FISTULARIS, of Cassia, or the Pudding-Pipe Tree. *Cassia fist. quinque jugis ovatis acuminatis glabris petiolis aglandulatis*. Linn. This is a kind of pod or cane, which grows upon a large tree in both the East and West Indies, not greatly unlike our walnut. The best is that from the East Indies. The part used in medicine is the pulp which grows within-side, and is black, and extremely sweet; which makes some call it Wild-Honey. That is best which is bright, black, and heavy, and does not rattle when shaken; because when the pulp decays with too much drying, the seeds, which lie in certain interstices, have room enough to strike against the side, and so be heard upon shaking. This pulp is a gentle purge, not much stronger than syrup of violets; and therefore is more used to procure a convenient laxness in some costive habits, than as a purge to discharge any over-load of humours. This pulp or extract, is kept in the shops by itself, chiefly for glysters; but it is seldom boiled up high enough to make it keep long without fermentation and souring. Vallisnieri says, that its purgative virtue is remarkably promoted by manna; that a mixture of four drams of cassia and two of manna, purges as much as twelve drams of cassia, or thirty-two of manna alone.

MYROBALANI, Myrobalans. These are a kind of dry foreign plums. They were not known to the Greek physicians; but are much in the Arabian pharmacy. Senertus often used them, and frequently in diarrhœas and dysenteries, for some astringency which attended their purgative quality. They are in some officinal compositions; but not regarded in common prescription. The medicinal catalogues take notice of several kinds of these; but the best of them are not worth any regard.

PRUNA, Prunes. *Prunus Damascena, vel Pruna majora dulcia et parva atro cœruleo*. Linn. They are gently laxative and cooling; and are an ingredient in the lenitive electary.

TAMARINDI, Tamarinds. *Tamarindus Indica*. Linn. This is the fruit of an Indian tree of the palm kind, and not greatly unlike the English ash in manner of growth. It is called *Siliqua Arabica* by C. B. The fruit is by some writers called Indian Dates, and by others Indian Acacia. They now come to us from both the Indies, and are either blackish or red. The former are usually preferred. The sailors are apt to enlarge their bulk with too much sugar; for a little does not hurt them. They are acid, pleasant, and cooling; and gently relax the bowels. For this reason they are in the lenitive electary; and also prescribed in burning fevers to moisten and cool the mouth, by sucking and gradually swallowing them.

ALOES, Id. It is the inspissated juice of a ferulaceous plant. The extreme bitterness of this drug has occasioned some writers to call it Fell Nature. There are two principal kinds of this taken notice of:

the—*Vulgaris* of C. B. which is the *Sempervivum maritimum* of Gerhard and Parkinson; the—*Guineensis Caballina vulgari similis, sed tota maculata*, of Commeline; and the—*Succotrina angustifolia spinosa, flore purpureo*, of Breynius, and of Linnæus. The second kind is called Hepatic, from its liver-colour, and Caballine, from its strength, and customary usage for horses; and the third sort hath its name from the place it chiefly comes from. The Succotrine is the purest of the three: it is of a glossy surface, clear, and in some degree pellucid; in the lump, of a yellowish red colour, with a purple cast; when powdered it is of a bright golden colour. The hepatic is not so clear and bright as the Succotrine; it is also of a darker colour, more compact texture, and for the most part drier; its smell is much stronger, and more disagreeable; the taste is intensely bitter and nauseous, with little or nothing of the fine aromatic flavour of the Succotrine. The Caballine is of a strong rank smell, though in other respects it is much the same as the Hepatic. Many are of opinion, that they all differ only in degree of fineness and purity; but the obstinate smell of the Caballine sort, which cannot by any ablutions be destroyed, makes some think them specifically different. The Hepatic comes from Barbadoes, in great shells like gourds, from which place it likewise sometimes takes its name; and the Succotrine is brought in skins; being of a shining golden hue, and of no ill smell: and this sort is always intended for inward use; being mild and safe: the other is so nauseous and offensive to the stomach, that it is used for little else but cattle, and is a

mighty purge for horses in England. They are all composed of two sorts of substances; the one resinous, which is dissolved, and taken up by a spirituous menstruum; and the other mucilaginous or gummy, which joins with water, and menstrooms of that kind. The hepatic aloes contain more resin and less gum than the Succotrine. Experience shows that the purgative virtue resides chiefly in the gummy part, and that the pure resin has little or no purgative quality. Hence the dissolvent is to be less or more spirituous, as the intention is for brisker or milder purgation. Its bitterness renders it so nauseous, that it is not much used in liquid forms; but generally made into pills, where half a drachm is a mean dose. Salt of tartar is the best corrector; and Etmuller insinuates, that so much may be mixed with it, as will quite destroy its purgative quality. There are hardly any of the officinal purging pills without this in their composition. There is certainly a dexterity in bringing it to be little more than an alterative; and *Tinctura Sacra*, which is an infusion of the *Species Hiære Picræ*, of which this is the chief ingredient, as it is ordered usually in the shops, with many will not operate until a long time after taking; and I have known instances, where it has been so managed, as not to work sensibly till after a third or fourth dose. It appears that many ancient physicians had the skill to use it thus; and in cases where the vessels are stuffed, and as it were almost glued up with viscidities, if this be so ordered as not to go off by the first discharges, but gradually to mix with the blood, it cannot but very powerfully break and deterge

deterge the humours in the smallest vessels, so as to fit them for some evacuation. And this is the reason, that frequently after repeated doses, when it once begins to operate, it continues to do so long together; for having in its many circulations at last so much fused the juices, they flow through the intestinal glands in great quantities, and run off by stool. But in these cases great caution must be had, that the evacuation, when it once begins, does not continue long enough to make a waste of the necessary fluids; which the strength of the patient is the surest rule to know by. It is a good cathartic, in watery, cold, corpulent constitutions; as it heats and attenuates very much; but it is bad for thin and hectic persons. It is very efficacious in promoting the menstrual discharges; and is very proper to be interposed in steel courses. It is also good to destroy worms, and scour away those viscid humours apt to breed them in the bowels of children. The hepatic aloes is so penetrating in its scent, as to purge and kill worms, applied only to the belly in a plaster. It is of great account amongst surgeons in the tincture of myrrh, for external intentions. In short, there is not any one drug of more universal use in medicine than this; or of greater efficacy for many important ends.

MANNA. This is a drug in great use now; but does not appear to have been very long so, by the silence of ancient authors about it. It is the juice of certain trees of the ash kind. *Fraxinus Calabrienfis folio rotundiore*. Linn. (growing in Italy and Sicily) either naturally concentered on the plants, or excised and purified by art. There

are several sorts of manna in the shops. The larger pieces, called flake manna, are usually preferred; though the smaller grains are equally as good, provided they are white, or of a pale yellow colour, very light, of a sweet not unpleasant taste, and free from any visible impurities. Some people injudiciously prefer the fat honey-like manna to the foregoing: this has either been exposed to a moist air, or damaged by sea, or other water. It is as sweet as sugar, and, like it, dissolves in any warm liquor. It is given to children, from two drachms to an ounce; and to grown persons, from one ounce to two, or upwards. It is reckoned only to deterge the *Primæ Viæ*, and carry its influences no farther than the stomach and bowels. It is therefore not to be depended on in any cases of obstinacy. That is now accounted the best, which comes from Calabria in Italy.

Radices, Roots of,

HERMODACTYLI, Hermodactyls. Casp. Bauhine calls this *Colchium radice ficutâ albâ*, which is the meadow-saffron; but many dispute whether it be of this kind, or not; some taking it to be a species of the *Dens Caninus*, others of the *Iris tuberosa*, amongst whom is Mathiolus; and others of the *Cyclamen*: however, this stands so much in the esteem of some writers, as to be dignified with the name of *Anima Articulorum*, the Soul of the Joints; because they believed it to be very efficacious in scouring the mucilaginous glands, and preserving them from the lodgment of such gritty matter, as occasions the gout and arthritic complaints. This is of that kind of cathartics, which exert not them-

elves but in the smallest passages; and therefore are slow in operation; although of great consequence in their effects.

MECHOACANNÆ, White Jalap. This is brought chiefly from a province in New Spain, called *Mechoacan*. Some indeed call it Indian Rhubarb, but improperly. Monardus will have it a species of exotic bryony; and C. Bauhine calls it *Bryonia Mechoacanna alba*; and Ray, *Convolutulus Americanus*. This is reckoned, as the former, a very efficacious purge, but of slow operation; the seat of its action being chiefly in the extreme parts; and therefore accounted good in all arthritic pains; for which purpose it stands in great commendation amongst the ancients; although it is almost rejected in modern practice.

RHABARBARI, Rhubarb. *Rheum folium palmatis acuminate*. Linn. This is a species of the *Lappathum*, and comes to us of two sorts. The first is imported from Turkey and Russia, in roundish pieces, freed from the bark, with a hole through the middle of each; they are externally of a yellow colour, and on cutting appear variegated with lively reddish streaks. The other, which is less esteemed, comes immediately from the East Indies, in longish pieces, harder, heavier, and more compact than the foregoing. The first sort, unless kept very dry, is apt to grow mouldy and worm eaten; the second is less subject to these inconveniencies. Some of the more industrious artists are said to fill up the worm-holes with certain mixtures, and to colour the outside of the damaged pieces with powder of the finer sort of rhubarb, and sometimes with cheaper materials:

this is often so nicely done, as effectually to impose upon the buyer, unless he very carefully examines each piece. The marks of good rhubarb are, that it be firm and solid, but not flinty; that it be easily pulverable, and appear, when powdered, of a fine bright yellow colour; that, upon being chewed, it impart to the spittle a saffron tinge, without proving slimy or mucilaginous in the mouth. Its taste is subacid, bitterish, and somewhat astringent; the smell, lightly aromatic.

Rhubarb is a mild cathartic, which operates without violence or irritation, and may be exhibited with safety even to pregnant women and children. Besides its purgative quality, it is celebrated for an astringent one, by which it strengthens the tone of the stomach and intestines, and proves useful in diarrhœæ, and disorders proceeding from a laxity of the fibres. Rhubarb in substance operates more powerfully as a cathartic than any of the preparations of it. Watery tinctures purge more than the spirituous ones; whilst the latter contain in greater perfection the aromatic, astringent, and corroborating virtues of the rhubarb. The dose, when intended as a purgative, is from a scruple to a drachm or more. Paracelsus pretended to a tincture from it, which had not its purgative quality, but only operated by urine, and purged away gravel and fabulous concretions. It is good against worms in children; and is the best purge that can be given them, to clear away those crudities in the bowels, which are apt to breed worms. It also gives a firmness to the fibres, which from the slipperiness of children's diet are generally too lax; so that
its

its repetition to them can hardly be too frequent. This is of great use in extemporaneous prescription; and is also in many officinal compositions; although none of them are so good as the root powdered and given in substance.

TURPETHI, Turbith. It is not agreed of what this is properly the root: some will have it of the *Thlaspia*, which Schroder is positive in; and Clusius, of the Scammony. We find it however described by C. Bauhine—*repens foliis Albæ*; and by Linnæus *Convolvulus Turpethum Album*. It is much of the nature of hermodactyls and Mechoacan; but more

efficacious. It yields good store of resinous particles to a spirituous menstruum, which affect not much the larger passages; but are very active and brisk in the smaller vessels, and glandulous contorfions; which this root wonderfully clears of all viscid adhesions. The ancients had a notion, that where agaric failed, turbith took effect; and when that was not sufficient, colocintida was the farthest they could proceed with such kind of instruments. The present practice almost neglects it. The dose is from half a dram to a dram in powder; and from a dram to half an ounce in infusion.

Class 2. Of the Draftic or Rougher Purgers.

Folia, Herbs or Leaves of,

CHAMÆDAPHNES, Spurge Laurel, is the *Laureola* of Gerhard and Parkinson; it grows in woods and hedges, and flowers in February. It is very hot, and vehemently purges bilious and watery humours. Another species of the *Laureola* is called *Chamælea*, or *Mezereon*, the Spurge Olive, and accounted of the female kind, as the preceding is the male. It is the *Daphne floribus sessilibus ternis caulinis, foliis lanceolatis deciduis*. Linn. Spurge Olive, or Mezereon with purple flowers. This is cultivated in gardens, and hath the same virtues as the former. The *Thymelea*, Spurge Flax, is also of the same class, and to be met with in the physic gardens. The berries of this last have the same virtues. The leaves, berries, and bark, both of the stalks and of the root, have an extremely acrid, hot taste, which lasts for a long time, burning the mouth and fauces.

Taken internally, they operate with great violence by stool, and sometimes by vomit, so as scarce to be safely taken, unless by some suitable management their virulence is abated. In rheumatic and venereal pains, a decoction of an ounce of the fresh bark of the root in twelve pints of water to eight, and taken to half a pint four times a day.

LINI CATHARTICI, Linn. Purging Flax, entitled—*Sylvestre*, by some; and—*Pratense flosculis exiguus*, by C. Bauhine. This is owned in medicine only by the common people. It is a rough harsh purge, and powerfully deterges and evacuates viscid and watery humours, from the most remote lodgments. This makes them fond of it in rheumatisms; but it is only fit for very robust constitutions. It is usually infused or boiled in ale, or wine; what they call a small handful, in a sufficient quantity of liquor, being the usual dose.

Semina,

Semina, Seeds of,

CATAPUTIAE. There are two sorts of this: the *Cataputia major*, which is the *Racinus Americanus* of Piso, and by some called *Palma Christi*; *Ricinus Communis*. Linn. and the *Minor*, or *Lachyris*, which is a species of rithymal, or spurge: both these agree in a violent purgative quality. The last of these is by some (though falsely, says C. Bauhine) called *Granadilla*. From the seeds of the *Ricinus Communis* of Linnæus, is produced the purging oil called Castor Oil; which see. The plant is native in Sicily; and is very ornamental in our green-houses. Hippocrates used the seeds of this plant instead of the *Grana Cnidia*.

Fruetus, Fruit of,

COLOCYNTHIDIS, Bitter-apple: distinguished *Fruetu rotundo minor*, by C. Bauhine. *Cucumis Colocynthis major, foliis multifidis, pomis globosis glabris*. Linn. This has been a drug of mighty account in medicine for many ages. Its roughness and violence of operation has always tortured the several hands it has past through, to determine in what part of its composition this quality resided; that they might the better know how to correct and mitigate it. According to some, it seems to reside in certain resinous particles, which soonest join with a spirituous menstruum, and therefore make such infusion too violent; for which reason they direct more aqueous dissolvents, and such as are capable of uniting with salt of tartar, which would separate the resin, and make its efficacy upon the fibres more moderate. Schroder and Ludovicus speak much of this management, and commend the

extract made by evaporations of the liquor, with salt of tartar for its corrector. They direct it from three to eight grains. Others conjecture its cathartic property to be more in its slimy and mucilaginous parts, which are best drawn out and dissolved by plain water; but most assign it to a penetrating volatile salt. And this latter seems to have been the opinion of the ancients, particularly of the Arabians; for which reason, in the *Trochisci Albandalæ* (for Handala, or Alhandala, was the name by which this drug was known to them) it stands corrected with gummy and mucilaginous bodies; as they are most proper to blunt the violence of those *spiculæ*, and prevent a too great irritation of the membranes. Van Helmont speaks of this as a thing which might easily be divested of its purgative quality, and reduced into an extraordinary alterative in some chronical cases; but this is a secret not yet found out.

In the Memoirs of the French Academy for 1701, the above mentioned Monsieur Boulduc has given his observations and experiments on this drug; which are worth our notice. He tells us, that it is the fruit of a plant of the nature of the wild gourd, and is very purgative; inasmuch that its operation is sometimes attended with excoriations of the membranes and blood. Whence many have conjectured, that *Coloquintida*, by its volatile salts, would render the blood more fluid; but our author did not find this true by his own experience; for he put a good quantity of it in powder to new-drawn blood, which did not prevent it from running into its usual coagulations. The little suc-

cess of the means hitherto attempted to correct this remedy, has not hindered Monsieur Boulduc from trying others. He fermented four ounces of its pulp with six pounds of good must of wine, for ten or twelve days together; then he distilled this mixture in *Balneo Vaporis*, by degrees. The first portion, of eight ounces, was very clear, moderately spirituous, and excessively bitter; the other portions gradually decreased in their qualities; and when the liquor came altogether insipid, he put an end to the distillation, and evaporated the remainder into an extract; which was of a sufficiently solid consistence, and weighed two ounces and a half.

With these, experiments were made upon the sick with all necessary precaution. An ounce of what came away first in the distillation, caused great nausea and severe colics, without effect; which were obliged to be appeased by other remedies; though two ounces of the same, upon another trial, had its effect, but with gripings. Of the extract made after distillation, he gave ten grains, which operated without violence, or irritation; which he attributed to the essential salts of the wine, whose acids had suppressed, and as it were fixed the volatile salt of the *Coloquintida*.

Next, instead of must, Monsieur Boulduc made use of water; and put in digestion for fifteen days, sixteen ounces of the pulp, with two quarts of boiling water; after which he distilled the whole. The liquors which came away, had nothing in them penetrating and volatile; had no taste, and if taken inwardly, had no effect. But the extract made of what remained after distillation, he found to be

very efficacious. It was a gentle purger, and of sufficient force, given in but a little quantity. Perhaps, says he, as the substance of the *Coloquintida* is extremely spongy, its mucilaginous parts which are in great number, are the most offensive; and a long digestion in a large quantity of water, may so attenuate, subtilize, and dissolve them, that an extract made in this manner may be a good preparation: and he believes the following experiments confirm this opinion. He drew from the *Coloquintida* all the tinctures possible with water; and by filtration separated the clear from the mucilaginous: of each of these he made a solid extract, of which the former was a more efficacious, though a more gentle purger than the latter. The last trial he made, was with spirit of wine; from eight ounces was obtained but half an ounce of resinous extract; whereas he had from the same weight, by the means of water, near three ounces of a saline one; reckoning both its clear and mucilaginous parts. Whence he concludes, that the colocynth contains much more salt than oil or sulphur; and that it is probable the salts, particularly the more gross, enveloped in the mucilaginous parts, are the occasion of its violent operation.

I shall leave the reader to make the best application of this account to his own practice he can; and only observe, that the common way of making the Eustachian extract, that is *Extractum Rudii*, contradicts Monsieur Boulduc's first experiment of the spirits coming over excessively bitter and purgative: for the liquor in which the ingredients of this composition, (the chief being colocynth) are infused,

fused, when it is drawn off by distillation (which most do only for good husbandry, as it may serve for the same use again) has neither colour, taste, or purgative quality, any more than common spirit of wine. So that Monsieur Boulduc seems to have made a mistake in the experiment, by letting some small quantity of the infusion inadvertently pass over into the receiver; which, in the least quantity, would give an extreme bitterness to the whole that came over by vapour.

This drug is yet much in the officinal compositions, but hardly ever met with in extemporaneous prescription; its nauseous taste not making it tolerable in any form but pills; where it can be covered. It is so smart a purger, as not to be safe but to athletic constitutions, and such full habits, where the fibres are sufficiently guarded, by a *saburra humorum*, from its vehement vellications. It is by all esteemed very efficacious against worms; but its roughness of operation makes it hardly safe to give to children, who mostly want it upon that account, unless in glysters. The only method of abating its virulence, without diminishing its purgative virtue, is to enlarge its volume, by triturating it with sugar, testaceous substances, or the like, which without making any alteration in the colocynth itself, prevent its resinous particles from cohering, and sticking upon the membranes of the intestines so as to irritate, inflame, or corrode them.

RHAMNI BACCÆ, seu Spinæ Cervinæ, Buckthorn Berries. *Rhamnus spinis terminalibus, floribus quadrifidis dioicis, foliis ovatis, caule erecto.* Linn. They may be dis-

tinguished from other common berries, (1.) By the tree they grow upon, which is a hedge-tree, or bush, with its branches full of long stiff thorns; (2.) By the leaves, which are of a yellowish green, about the size of those of the floc-tree, but more elegantly serrated about the edges; (3.) By the flowers, which grow several together; being small, four-leaved, and yellow; (4.) By the berries themselves; which are a little larger than elder-berries, round and black; yielding a bitter purple juice, dashed with green; and holding three or four cornered seeds; the tree grows in woods and hedges; flowers in June; and the berries are ripe towards the end of September. Those who sell the juice to apothecaries, are apt to mix it with water. The syrup which is made by many private families, as well as in the shops, is the only preparation of them now in use. It is a strong purger; and effectual in discharging watery and stantent humours; and is therefore in esteem in dropsies and rheumatisms. We are told that one of the German emperors made it his constant medicine in the gout, and with good success. It is frequently given by the poorer sort to purge their children; but it is too rough for such tender constitutions. They give it from two drachms to an ounce; and to grown persons two ounces. It is frequently in extemporaneous prescriptions ordered in cathartic draughts and glysters, with other purgative ingredients; to quicken their operations.

Gummi, Gums:

GAMBOGIAE, Gamboge; *Cambogia Gutta.* Linn. called also Gut-

ta Gamba, comes from the *Carapali* of Parkinson, and the *Bauhines*; which grows in Malabar. This gum hath been longer known in painting than in medicine, for its yellow colour. The violence of its operation, both by vomit and stool, has occasioned abundance of search for some proper corrector; but none has yet been found better than the lixivious salts, and particularly salt of tartar. Monsieur Boulduc, who has been industrious this way, and communicated his experiments to the Academy of Sciences upon many of the most efficacious medicinal simples, in the Memoirs for 1701, has a dissertation upon Gamboge. He says that it ought to be reckoned amongst the resinous juices, since it is inflammable and will flow in the fire, and be almost entirely dissolved in spirit of wine; but, on the contrary, that in aqueous menstruums it spreads itself into a milky substance like scammony, and afterwards precipitates. It seems at first to be insipid upon the tongue, but soon after becomes sensible in the throat by its acrimony, and an insupportable drought. It is a powerful hydragogue and emetic; but ought to be used with caution, and not until it has been corrected. Monsieur Boulduc says, he endeavoured to get flowers from this resinous juice, like those from benjamin, but without success. He made trial on it with spirit of wine, a ley of alkalious salts, and water: the spirit of wine dissolved all, except about a sixth part: the remainder, which the spirit would not touch, was easily dissolved by a solution of salt of tartar. This, says he, may be esteemed the saline part of Gamboge; and though it had no

purgative virtue, it was very diuretic. The resin, which was made by the spirit of wine, purged more violently, and with greater irritation, than the Gamboge itself.

This gum was entirely dissolved by an equal quantity of salt of tartar, and a sufficient one of boiling water; excepting some few terrestrial parts. The liquor filtered and evaporated by a gentle fire, gave a sort of grey salt, which easily flowed in the air, if not kept close stoppt in a phial. This saline extract purged with less irritation, and in a smaller dose than the gum; but caused a great acrimony and heat in the throat; insomuch that it was intolerable; and ought therefore to be enveloped in some other-convenient substance when it is given.

This gentleman observed before, that water would not dissolve it; but only made it flow into a milky substance of a yellow colour, which soon precipitated, and left the water clear above it. This residuum dried, differed in nothing from the gum; only it was more pure. By casting distilled vinegar on this milky substance, it became clear; oil of vitriol, on the contrary, made it again turbid; and spirit of wine gave it a golden colour. There are many ways, this author observes, of correcting it; but he thinks that by alkalious salts is the best. However, he gives one of his own, which as it is different from any other hitherto used, he has also continually practised it with success. The manner is by tying the gum in a rag, and putting it into a hot loaf, as it comes out of the oven, where it must remain for twenty-four hours: afterwards it is to be powdered; and this must be repeated
four

four or five times. By this management, he says, he always found it freed from its great violence, as well purgative as emetic. He farther observed, the crum of the loaves thus used, to have both a purgative and emetic quality.

From this account it is not very difficult to determine the qualities of this drug, wherein its efficacy consists, and the most advantageous means of managing it in prescription; though it does not clearly appear what way of reasoning directed the author to the loaf of bread; because it has no relation to the means made use of in other trials; nor is it easily to be accounted for, how such a method made it of a milder operation. It is a powerful hydragogue, and therefore good in dropsies, and disorders tending thereunto. But its roughness requires the utmost caution and skill in its exhibition. It is a fit purge only for grown persons, and those of a strong constitution; and to such a scruple is an outside dose. With all the care possible to prevent it, it will frequently vomit before it passes downward. The most convenient form to give it in is a bole or pills; for no menstruum will equally draw out all its qualities by dissolution. It will not well powder without some portion of a lixivious salt, or fine sugar; and such are its best correctors, by dividing its resinous parts, and preventing their adhesion to the membranes in too forcible a manner. In several intentions which are most conveniently answered by the urinary discharges, that particular management of Monsieur Boulduc's, which divested it of its purgative parts, and left only the sa-

line, which were very diuretic, may be worth putting in practice.

ELATERII. This is an inspissated juice, or extract, made of the wild cucumber, called *cucumis aspinus*. It is the most violent in operation of any of the hydragogues; and therefore is seldom prescribed, but where the case is stubborn and desperate; and then only from two to four or five grains.

SCAMMONII, Scammony. This is the inspissated juice of a root called by many *Scammonium*, of the convolvulus kind. *Convolvulus Syriacus, seu Scamonia syriaca, foliis sagittatis postice truncatis, pedunculis teretibus subtrifloris floribus pallid luteis.* Linn. That which we have now in the shops, must be different from the scammony of the ancients; because they gave it in much larger doses, their's being frequently a whole drachm; whereas our's cannot be trusted in the most robust, beyond a third of that quantity. This drug is greatly esteemed in medicine; and enters almost all the officinal purges, whose forms are suitable for its reception; because it is not convenient in any that are more liquid than an electary. That is reckoned best which is light and grey; the heavy and black is not much esteemed. It is so adhesive that it will not powder, unless the mortar be sometimes rubbed with a little oil: and in the powdering, care should be taken, that it does not get up the nose; for it will purge the head so violently, as oftentimes to occasion a great deal of mischief. Loaf-sugar, and any alkalious salts, are also very convenient to rub it into powder with; for they divide its parts, and make it operate more gently; as they do all other resinous

nous purges. It wonderfully deterges the passages and glands of mucous and viscid humours; and therefore is a good ingredient in all compositions intended against those distempers; which have such humours for their cause. It is reckoned a good destroyer of worms; but great care is to be taken how it be given to children; although some empirics put off sugar-plums and lozenges for such intentions, where this is the only purgative ingredient; as its quantity in a dose is but small. But such things, although they chance to work off well with some strong children, yet they often do a great deal of mischief, and occasion convulsions, by their insupportable vellications of the tender membranes and fibres.

Cortex, Bark of,

ALNUS NIGRÆ, the Black Alder, called also *Frangula*; the *Arbor fœtida*, or stinking tree; and the *Alnus nigra baccifera*, the black-berry bearing alder of C. B. *Betula alnus nigra*. Linn. The inner bark to the quantity of a dram is a very strong cathartic, and used therefore to be given in dropsies, and where a great load of humours is to be purged away. The ancients accustomed themselves to correct it with cinnamon, ginger, and the carminative seeds; but it is now very little in use.

Radices, Roots of,

ELLEBORI NIGRI, Black Hellebore, called also *Veratrum nigrum*. *Helleborus scapo sub-bifloro subnudo, foliis pedatis*. Linn. This has been a medicinal drug of the greatest esteem among the ancients, in the most obstinate chronical cases; but grows neglected now, either through our unacquaintance with its virtues,

or the sort which comes to us not having the efficacy of that which they made use of. The latter may be our unhappiness; for botanic and Dispensatory writers differ much in determining which is the true officinal hellebore. Matthiolus tells us, that is the right which flowers like a rose; others, that it has a sky-coloured flower; and Bauhine takes it to be the *Elleborus niger, tenui folio, Buphthalmi flore*. And by the strength and manner of the operation of that they speak of, our's seem to be of the same species, but much weaker in efficacy. What comes to us now, will not operate much by stool; but is a powerful alterative, and wonderfully affects the juices in the most remote recesses. For this reason it greatly promotes all the thinner secretions; and particularly that by sweat, especially if joined with any convenient volatiles. This root is almost infallible in obstructions of the menses; and where steel is not only ineffectual, but improper; as in plethoric habits: for in such, steel will sometimes raise hysteric commotions, convulsions, and a sort of uterine fury: whereas this so thins the blood, as to dispose it for that discharge, without making it more impetuous. So that though steel and hellebore both promote the menses, yet they do it different ways; one by increasing the blood's velocity, and giving it a greater momentum in the uterine arteries; and the other by dividing it, and rendering it more fluid. In all nervous cases the most ancient practice confirms its efficacy; but especially in the mania or distraction. In this last intention it has been so famous as to make it even proverbial, to send such a one to Anticyra, whom

whom they would insinuate to be mad; because that country produced the greatest quantities of this drug.

Monsieur Bouldue, to whose industry in experiments of this kind we have been much beholden already, gives us some which he made upon this root also, in the *Memoirs of the Academy of Sciences* for the year 1701. The extract which he procured with spirit of wine, was very little in quantity; because this root contains few resinous parts: and I am, says he, the more confirmed in this, since from what remained I was able to get a great quantity of an extract with water.

He also made an extract of the root with water, wherewith was drawn all that could be extracted; for from the residue there was nothing to be got by means of spirit of wine. Whence it seems reasonable to conclude, that the saline parts are able so to dissolve its few resinous ones, that both may be drawn out by water, without the aid of spirit of wine. He farther remarked, that the first extract, which was purely resinous, and made with spirit of wine, purged little, and with irritation; that the extract made of the remainder with water, purged not at all, but was very diuretic; and that, on the other hand, the extract made first with water, and without spirit of wine, purged well and gently. And this, he says, he has observed of most purgatives; whence he thinks that the extract made by spirit of wine alone, ought to be suspected; since being deprived of its proper salts, which when joined to the ferment of the stomach, open, divide, and attenuate the resin; it happens that its thick

and resinous parts do adhere to the fibres of the stomach, and cause gripings, and, by remaining undissolved some time, excite a tenesmus. And this is confirmed by experience; for the most able practical physicians are wont to correct the resin with salt of tartar. He confesses that to be a good method in these cases; but supposes, one may do without it, by leaving to those resinous extracts the proper salts which nature has endued them with. Whence he affirms, that the way of making the extract with water, is preferable to the common way of doing it by a sulphureous menstruum; since thereby the substance is freed from its terrestrial parts without depriving it of any of its natural principles. He takes notice that the hellebore which is brought from Switzerland, is preferable to that which comes by the way of England. This latter, whether it is spoiled by keeping, or loses its virtue by transportation, he found to have little or no effect.

So that by this author's account, as well as the reasons above given, there is ground to suspect very much, that our hellebore falls greatly short of the goodness of that used by the ancients; since we find there is so great a difference between it, and what so near neighbours as the French have in use among them at this time. Of our's I have frequently given sixteen or twenty grains in powder, as an alterative and a sudorific; and in tincture, where the root has been one part and the menstruum three. it may be given to sixty or one hundred drops to a dose. I have found its virtues best drawn by rubbing a little salt of tartar with

with it in a gross powder, and letting it lie until the air runs it; for that so penetrates into the very substance of the root, that its parts immediately join with the menstruum, as soon almost as put into it. Small wine I have imagined the best, as most likely to take up all its parts of any medicinal efficacy. The tincture is the best preparation.

JALAPII, Jalap. This is the root of a plant not unlike our bryony, and is therefore by some called *Bryonia Peruviana*; for it is brought to us chiefly from Peru and New Spain. The Mechoacan and this are both reckoned species of the *Convolvulus*; and therefore as this is sometimes called *Mechoacanna nigra*, so that goes as often by the name of *Jalapium album*. That which breaks blackest, most brittle, sound, and shining withinside, is best; by reason the resinous parts, which give it those properties, are supposed to contain its medicinal virtues. Some take great pains to extract its resin, which is to be done with any spirituous menstruum; but afterwards correctors are wanted for it. The most common one is salt of tartar, or loaf sugar; for its being rubbed much with the latter, makes it operate milder; for the same reasons as the salt of tartar does. But if correcting it consists in separating its parts, what occasion was there for the pains of drawing them from the root, and joining them in the form of a resin? And therefore that operation seems to have been very needless. Monsieur Boulduc has likewise upon this drug made some experiments very useful to inform us in its true virtues: which we shall therefore abridge from the Memoirs of the

Royal Academy of Sciences in France, for 1701.

He says it is one of the best cathartics we have. He has found it so by experience, and wonders that it is so little used at present: for as it is so gentle, that it stands in need of no corrector; on the other hand it wants nothing to promote its operation; which can be hardly said of any other purgative simple. Yet he observes, that there are many methods given to correct it, which rather spoil than meliorate it. Some have observed, to its disadvantage, that it binds the body too much after its operation is over; but this he thinks of no force, because that effect is common to other purges, especially the hydragogues. His experiments were made by extraction with spirit of wine and common water. Twelve ounces of the root yielded, with spirit of wine, two ounces of a resinous extract well dried; the remainder being likewise well dried, weighed nine ounces and six drachms. Out of this remainder, by water, he got four ounces of a very solid and pure extract. He took twelve ounces more of the same root, and digested it in common water, with a gentle fire; then by evaporation he got an extract well conditioned, which weighed six ounces and half; the thick and mucilaginous parts, which he separated by filtration, being well dried, weighed an ounce and half; and the residue weighed but four ounces and half.

Hence he observed, that the extract made by water, if given from four-and-twenty grains to thirty-six, purged gently; but was very diuretic; as he had experienced in many hydropical cases: that

the residue, which yet contained a little of what was resinous, purged reasonably, but with gripings; that the remainder, deprived of its saline and resinous parts, purged very little, but was extremely diuretic. Whence he takes the liberty to conclude, that extracts to purge to the purpose, and without irritation, ought to contain both the saline and resinous parts. For the former only pass by urine, and the other always, if taken alone, occasion disorders; but both joined together, their effects are laudable: for the saline opening the resinous parts, and dissolving and accelerating their distribution, do thereby hinder them from adhering to, and inflaming the parts they pass through.

According to the opinion and experience of this person, both concerning this and other drugs of

the like nature, the more pains is taken in their preparation, the worse they are; because nature seems to have furnished them with the best correctors in their production. The jalap root itself therefore simply powdered, is the best way of taking it; and may be mixed into a draught or a bole. It may be given to adult persons from half a drachm to one drachm; and to children some make the mean rule, to give so many grains as they are years old; but that is somewhat in too small a quantity, especially when they are advanced above ten years.

THAPSIAE, Deadly-Carrot, *Carrotæ folio*, C. B. *Thapsia garganica*, Linn. It grows in some gardens; and the juice of its root is a violent purger; but the present practice makes no use of it.

S E C T. IX.

Of Sternutatories.

THIS is a way of application in medicine seldom made use of, but to loosen and drain away such humours by the nose, as are not easily to be come at by other means. A very little part therefore of the *Materia Medica* falls under this division; although many volatiles and aromatics are used for this intention; which by reason of other more important properties are ranked under other heads: what we have subjoined here, being hardly made use of in medicine for any other purpose.

How a medicine occasions sneez-

ing, is not at all difficult to understand, to one who has considered well the manner by which emetics draw the stomach, and its appendices, into that motion which is observed in vomiting. The fibres and membranes within-side the nostrils are extremely sensible; whatsoever therefore stimulates them, makes them contract, and thereby twitches those parts they have any communication with; which, by degrees, brings on that general convulsive shake, that throws off the irritating matter. Every one's own experience demonstrates,

monstrates, and best explains to himself how this is produced; and likewise manifests the great influences which may be communicated over the whole body, by the communication of fibres from an almost unheeded sensation upon the least part.

The salutary effects of this forcible concussion of the whole body, are very considerable. There are many glands about the head, destined for the separation of very viscid and mucous substances; by which means many sinuses or cavities, of service in the œconomy, are frequently stuffed so with such matter, as not to give that room to some of the vessels, as it is their office to do; whereby the circulating fluid in some part makes them too turgid: which upon many accounts will occasion uneasy sensations, pains, giddiness, and other distempers, frequently experienced in the head. By a particular conformation the nose receives and discharges many such superfluous viscidities. Therefore a stimulus, from what we call sternutatories, or commonly snuff, will provoke those parts to increase those discharges; whereby a troublesome load is drawn off, and the head rendered brisk and lightsome.

But, besides the benefit which the head immediately receives from such a discharge, the whole constitution is likewise so sensibly affected, that in many cases it is of use as an exercise. There is no motion whatsoever, even not that of vomiting, which so suddenly and forcibly shakes the whole nervous system; so that in all obstructions of the finer passages, and particularly of the nervous fluid, whatsoever produces sneezing must be of great advantage. And com-

mon experience in practice confirms this in many instances of paralytic, apoplectic, and lethargic cases; where this motion rouses and enlivens, as it were, the spirits; and, by shaking the most remote fibres, assists their proper juices in circulation, which before seemed to stagnate, or not to irritate the fibres enough to maintain their natural elasticity. And of such great efficacy is this convulsion, that it is sometimes procured on purpose to assist the expulsion of the fœtus; and with good success.

How far the custom of taking snuff, as it now prevails, is serviceable or detrimental, is not directly to our purpose to determine; but thus far it may not be amiss to inform those who comply so much with it as a fashion, that they put it out of their power to receive any benefit from it as a medicine, whensoever there may be occasion for such helps; for continually stimulating those parts with hot pungent snuffs, makes them by degrees grow as it were callous, and much less sensible; which all snuff-takers experience, being not provoked to sneezing, if they take ever so much; when one pinch of the same would immediately operate upon a stranger to it. There is another inconvenience also from this practice; and that is spoiling their appetite: for most of the common snuffs are tobacco, of one kind or other; whereof some will pass down the throat into the stomach, especially in those who take much; which destroys the natural appetite, as many confess they find by experience, although they cannot be prevailed with to leave it off. For such who imagine the continual taking of snuff

to be necessary, or beneficial, to them, many things in liquid forms would much more properly answer their intention; such as *Sal volatile oleosum*, diluted with something proper, where it is too strong by itself. But it is to be feared no salutary regard can obtain such a reformation, unless that idol fashion, would vouchsafe its sanction.

Flores, Herbs or Leaves of,

PRIMULÆ VERIS, Linn. Primrose, called *Verbasculum Sylvarum majus, singulari flore*, by C. B. This flowers very early in the spring. The juice is expressed; and, after it is fined *per subsidentiam*, made use of to provoke sneezing, in such cases, as the drain which that procures, is imagined to do service.

ASARI, Asarabaca. *Asarum foliis reniformibus obtusis binis*, Linn. This is become a mighty snuff of late. The leaves are common in the physic markets; and to dry and reduce them to powder, is all that is required in making them into snuff. Some empirics, or traders in physical matters, have put off a snuff by the name of Royal at a good round price, which is little else but this, decorated with some leaf-gold. This has anciently been much in use, as an emetic and a cathartic, in doses from a scruple to a dram. Rolandus frequently prescribes the root as a diuretic: as does also Fernelius, in whose works we meet with an electary, in which that is the chief ingredient. Its operation is very brisk, and therefore commended in constitutions that are moist and cold, and subject to generate viscidities, and what obstructs and fouls the viscera, and retards the contractile

force of the fibres; but in none of these cases does the present practice acknowledge it. The spirituous tincture possesses the emetic and cathartic qualities; but the extract operates only as a mild emetic. The watery infusion is said to be only cathartic and not emetic. As a sternutatory, it frequently does good service; for it powerfully drains mucous humours out of the head. It is not so pungent as to be immediately felt upon taking, like the tobacco-snuffs; but after some time it makes the nose run very much, and not unfrequently blood itself; if its use be long continued. The usual way is to take near a scruple going to bed, for three or four nights together; and by the next morning its operation will be very sensible; though it occasions little or no sneezing, unless by the acrimony of the humours which drain off, and irritate the fibres in their passage. The roots are nearly twice the strength of the leaves.

EUPHORBII, Euphorbium. This is a gummy resin, exuding from a large oriental shrub. *Euphorbia officinarum*. Linn. It is brought to us immediately from Barbary. It is so extremely hot and penetrating, as to prove even caustic; wherefore, although it is mentioned as a purge, in many authors, against serous and viscous humours, and its dose assigned from half a scruple to a whole one, yet it is now never given inwardly, because its violence tears off the necessary mucus, or covering of the stomach and bowels, and occasions dysenteries. As a sternutatory, it is to be used very cautiously, and never to be taken alone, but mixed in a small quantity with some other powders proper to soften the fibres, and

and guard them against the intolerable heat of the Euphorbium. In pounding it there may be much danger; because, without great care, so much will fly up the nostrils, as to do mischief.

ELLEBORI ALBI, White Hellebore, called also *Veratrum album*. *Veratrum racemo supra decomposito, corollis erectis*. Linn. It grows on some mountains in Germany. The ancients gave this inwardly as a purger of phlegm and viscid humours; but its violent operation has expelled it now from internal use: and it remains at present in medicine little otherwise than an errhine. And even thus, its irritations are so great, as to make it not prudent to venture it alone; and therefore it is joined with other things which abate its vehemence. It is also prepared in some lotions for cutaneous foulnesses; and is oftentimes successful in detaching those little ulcerations which blotch and deform the skin, and are sometimes infectious, or what the common people call catching. In some

maniacal cases a scruple hath been given for one dose, with great advantage.

NICOTIANÆ, Tobacco, called also *Petum* and *Tabacum*; by Gerhard, *Hyoscyamus Peruvianus*; by Piso, *Petum*; distinguished by C. Bauhine—*Major latifolia*. *Nicotiana Tabacum, vel Nicotiana Virginiana, foliis lanceolatis ovatis sessilibus decurrentibus floribus acutis rubris*. Linn. If it be infused, and the liquor drank, it produces sickness, vomiting, and afterwards dosing stupidity. And therefore, although it has been used as an emetic amongst some ignorant people, yet common prudence has hitherto kept it out of general practice. How its constant use comes to make it so familiar to persons, as not to have any of those strange effects upon them as it has at first, is not properly our business to explain here; although the fact is in every one's knowledge. What we place it for here is as a sternutatory; since it is the basis of all the snuffs now in use.

S E C T. X.

Of Narcotics.

UNDER this head we include all that part of the *Materia Medica* which any way produces sleep; whether called Narcotics, Hypnotics, or Opiates. But although many of this tribe stand with some authors in the rank of poisons; yet we shall not here enter into the controversy, whether such things can be medicinal, or whether a medicine can poison; because it is certain there

is truth on both sides of the debate. These are instruments whose agency lies very remote from the reach of our senses; as wonderful effects are often produced almost from unheeded causes.

Folia, Herbs of,

CICUTÆ, Hemlock. *Conium maculatum seminibus striatis*. Linn. This plant grows much like parsley; and it is so difficult to distinguish

them when young, that in all probability they have sometimes been gathered and sold together. For there have been many instances of persons, and sometimes whole families, being suddenly taken ill, so as to occasion suspicion of poison, when they had reason to suspect it in the parsley. The fool's parsley, and the scandix, with rough seeds, are the most likely to be mistaken for this poisonous plant; but the hemlock is well distinguished by its large and spotted stalk, by the dark and shining green colour of its bottom leaves, and particularly by their disagreeable smell when bruised. It has so much the repute of being poisonous; that it is never taken inwardly unless by such accidental mistakes as above mentioned; but I never heard of an instance where it has proved deadly, though many are so caught with it. It first affects persons with a giddiness of the head, and dimness of sight; and afterwards operates violently by vomit and stool. Fat broths and oily softening liquors are good in such accidents, to defend the stomach and bowels against its velications. After its fury is over, which lasts not long, is sometimes leaves a dizziness or heaviness to sleep; and goes off without any farther mischief. The *Oenanthe*, which Wepfer describes under the name of *Cicuta Aquatica*, Dr. Mead thinks the poison which was used so much of old, especially at Athens, for killing malefactors; but the common hemlock, he says, is not by much so malignant. Et-muller mentions a person who took the root inwardly, to the quantity of a drachm; which cured him of a schirrous liver and spleen; and recommends us for

farther knowledge of its properties, to Kircher, Simon Pauli, and Amatus Lucitanus. But we have but an indifferent warrant for such practice; and as anciently as Dioscorides, it stands rejected from all inward use, for its poisonous qualities. Dr. Storck says, that the fresh root afforded an acrid juice, of which one drop so inflamed and swelled his tongue, as immediately to render it painful, rigid, and difficult to use in speaking. Yet it is certain that the roots of our spotted hemlock may be chewed and swallowed in considerable quantities, without producing any sensible effect; and that in any season of the year. However the leaves and stalks are by many in esteem externally, for the spleen and hypochondriac inflammations. The juice is boiled up with gums, and such convenient ingredients, as are necessary for the form of an em-plaster. Our college had one which bears its name, and was pretty much prescribed in the above mentioned case; as likewise to discurt hard, flatulent, or cold tumours in other parts. See Extr. *Cicutæ*.

MANDRAGORÆ, Mandrake; distinguished—*Fructu rotundo*, by C. Bauhine. This is of a strong narcotic quality, and is mentioned in some ancient writers as convenient to be given before an amputation, to deaden the sense of pain by stupifying the patient; but modern practice owns it not for any such use. The mandragora of the ancients was the *Atropa Mandragora* of Linn. It is reckoned cooling, in external applications, and therefore commended in inflammations of the eyes, or an erysipelas; upon which foot it stands in the *Unguentum Populeum*.

NICOTIANÆ, Tobacco. See the preceding class. Common experience manifests, upon the first use of this its narcotic properties; and although it be only smoaked, according to usual custom, or chewed, as some take it, or administered in snuff, it has always the same effect: but upon long practice, like many other things of this kind, it grows less perceivable in such qualities; and with some seems to have no influence at all. Its inward use is no way practised, but amongst some poor people, for cheapness sake, as a vomit; unless in those unnatural ways which invention has found out, of smoaking, chewing, or taking it in snuff. In whatsoever form it is taken, it is certainly prejudicial to people that have weak nerves.

SOLANI, Nightshade. Of this there are various kinds described by botanists; the chief of which are the *Solanum Lignosum* the same as *Dulcamara*, or *Amara Dulcis*, Bitter-sweet; and the—*Pomiferum fructu rotundo striato molli*, of Casp. Bauhine; or *Mala aureo odore fætido quibusdam Licopersicon*, of J. Bauhine; Love apples. But the—*Vulgare* of Parkinson is the only officinal kind. *Atropa Belladonna*, vel *Atropa caule herbaceo, foliis ovatis integris*. Linn. Dwarf, or Deadly Nightshade; or, as preferable, the *Solanum caule inermi frutescente flexuoso, foliis superioribus hastatis, racemis cymosis*. Linn. Garden Nightshade; which is reckoned very cooling; in so much as not to be safe in inward use; being deadly in its consequences. Some authors commend its external application to the temples, against the headach, and in inflammations of the eyes; and to the feet, in burning fevers. An in-

genious surgeon lately published a pamphlet on the virtues of this plant. An infusion of one grain and an half of the leaf either of the *Solanum hortense*, or *Lethale*, purged, vomited, and sweat, to an immoderate degree, and was found so beneficial in old ulcers, and cancers, as to be thought a cure for them. The infusion was presently given to more than four-score patients at once in different hospitals; several were relieved, few or none cured, but all of them were troubled, during the course of the medicine (which they repeated every day or every other day) with vertigoes, blindness, deafness, stupors, &c. though none of them died; yet so many symptoms of the worst kind appeared, that it was universally agreed to return the *Solanum* to the class of poisons from whence it had been taken—I believe there never was an instance before of any simple being examined with so much candor, and upon so many subjects at once.

STRAMMONEI, Thorn apple, is the *Solanum fætidum pomo spinoso oblongo*, of C. B. *Datura pericarpis spinosis erectis ovatis, foliis ovatis glabris*. Linn. It grows in gardens, and flowers in June; but medicine at present is a stranger to it.

Flores, Flowers of,

PAPAVERIS ERRATICI, Wild Poppies, is the *ῥοιὰς* of Dioscorides, Theophrastus, and Pliny; and the *Rhæas* of Gerhard; and the *Erraticum rubrum campestre* of J. B. the Corn Rose. *Papaver foliis pinnatifidis incisissimis hispids, caule piloso multifloro, floribus coccineis, capsulis glabris globosis, seminibus purpurascens*. Linn. The flowers

blow in June, and have a fetid faint scent; but make a syrup pleasant enough, which is much used in the shops. They are gently anodyne and narcotic; so that they are given safely to young children: two drachms to half an ounce of the syrup is a dose very moderately inclining to sleep; and also promoting a diaphoresis. There is an infusion made of them in a low spirit, in some shops; which being dulcified and warmed with a few proper aromatics, makes a very toothsome dram; and is much used by some with good success, under the title of *Aqua Papaveris rubra*, (and *Aqua Crapulae*, or surfeit water) in colic pains and flatulencies at the stomach. And these are the principal ingredients in many of those waters which are sold in the shops, by the name of colic waters; and answer their end in giving present ease, by their soporific properties. This quality does not restrain somewhat which is detergent in their composition; for they help expectoration, and are good in many distempers of the breast. The simple syrup which is commonly made with them, has a beautiful red colour; and is not only a good sweetner of alexipharmic juleps, but makes them pleasant both to the eye and palate.

PARALYSEOS, Cowslips, are the *Primula veris major* of Gerhard. *Primula elatior*, vel *Primula foliis dentatis rugosis, scapo multifloro, floribus fastigiatis luteis odoratis*. Linn. The flowers are commonly enough known, and reckoned of the same virtues as the former: but in a less degree. They are very little in use. The syrup is well enough to sweeten juleps for children; but is not so effectual in any respect, as to deserve an as-

signment of its dose; there being no fear of error in quantity. The water is good for nothing; and the conserve for little else than to give a convenient consistence and bulk to electaries or boles, amongst ingredients of more efficacy.

Fruetus, Fruits:

NUX VOMICA, Id. This is the fruit of the *Solanum arborescens Indicum*, according to Breynerus. *Strychnos Nux Vomica*. Linn. The wood of which is the *Lignum Colubrinum*. Its principal use is to do mischief with, by killing dogs or cats. It has all the operations of a violent poison. The *Semina Hyoscyami*, *Cocculæ Indicae*, and *Staphidis agriæ*, are all so much of the same nature, that we have forbore to give them distinct places. They are commended for destroying such vermin as are apt to breed in uncleanly people. Riverius prescribes the *Cocculæ* in a cataplasm against the gout. Some poachers have learned a trick of making these up into a paste, to intoxicate fish with; so that they may be taken out of the water with one's hand. And this appears to have been an old practice; as we find them, for this reason, in some authors, distinguished by the name of *Baccæ Piscatoriae*.

CAPITA PAPAVERIS ALBI, White Poppy Heads. The plant is the *Papaver somniferum album*, vel *Papaver calycibus capsulisque glabris foliis amplexi caulibus incisis*. Linn. These are cultivated in gardens; and contain a great deal of a juice, which may be extracted into an opium; being of the same virtues, but not so strong as the Turkish opium; whence it requires to be given in a double dose.

dose. See the next article but one, viz. *Meconium*. Of these the *Syrupus de Meconio* is now made.

CAPITA PAPAVERIS NIGRI, Black Poppy Heads. These grow not as the former; but wild amongst the corn; and are reckoned stronger. These were formerly an ingredient in the *Syrupus de Meconio*. They are so narcotic, that their scent will even affect persons with drowsiness. Of this I once knew an odd instance: a whole family insensibly fell into such an inclination to sleep and heaviness, as for two or three days to be scarce able to keep awake; until at length imagining the cause to be from a great many green poppies which were hung almost in all the rooms to dry, the poppies were removed, and the lethargy wore off.

Succi, Juices:

MECONIUM, Id. This is the extract of our English poppies, and has all the virtues of the foreign opium, but in somewhat a lower degree.

OPIUM. This drug is the concentered juice of the heads of the white poppy, and is generally imported hither from Turkey. It has been, till lately, considered in general as a soporific and sudorific only; and its use mostly confined to the removal of deliriums, nervous coughs, and some other particular purposes: but the experience of modern practice has so extended its application, as to give a sufficient light into the true nature of it. The quality of opium, to which its medicinal effects are owing, is the diminishing the sensibility and tenderness of the nerves, in such manner, that spasms, and the convulsive cramps that are

excited by inflammation, or the action of any irritating bodies, are thereby greatly mitigated, and in general removed; and the symptomatic mischiefs attending many disorders thence prevented or lessened. This power, therefore, renders it of extreme good service in the following disorders, the evil consequences whereof are the result of the irritating acrimony of depraved humours: first, in the *cholera morbus*; where the whole of the danger arises from the violent convulsions caused by the intolerable stimulus of excessively acrid bile, poured out of the *ductus colidochus communis* into the intestines, in an incredible quantity; in this case opium will give a reprieve from the fatal consequences of the spasms, till a discharge of the morbid matter is procured by the aid of cathartics, when it would be impracticable by any other means to give the least relief. It is in like manner highly efficacious in diarrhoeas and dysenteries, which owe their origin to a parallel cause: as also in the convulsions of children, produced by an acerbent acrimony of the humours in the *via prima*. It is, when judiciously used, of great importance in several cases of eruptive and other fevers where a spasmodic state arises from nervous irritations; particularly in respect of children, whose greater sensibility subjects them to frequent convulsive symptoms; especially in the small-pox, where, by a proper use of this medicine, the fatal spasms, which attend their coming out may be frequently evaded. It is likewise of high efficacy in many female cases: relieving the convulsive disorders of the uterus, and checking those excessive discharges of

the

the catamenia, and profuse hæmorrhages consequent to delivery, which are caused by them. Besides these, there are many occasions, not reducible to general rules, where, on the same principle, this quality of opium may remove symptoms which would be otherwise fatal or dangerous, and on which all the other qualities of medicine could have no influence: whence it may therefore be justly ranked amongst those few medi-

cines, of whose obvious effects the recovery of the patient from violent and dangerous diseases is the evident result.

The dose is various, viz. from a quarter of a grain to two grains or more, and to be repeated as required.

It is partially dissolved in water, and in rectified spirit of wine; proof spirit, wine, and vinegar, dissolve it all, leaving only the impurities behind.

S E C T. XI.

Of Anti-inflammatory Simples.

THESE are as little regarded in medicine as any class of simples; being of slight efficacy, and used for no important intention; and seldom prescribed any otherwise than as palliatives, or to mitigate the uneasy sensation of some particular symptoms, more than to cure the disease whence they arise.

All of this rank may be considered under the two following divisions: the first are such as immediately produce a present sense of cold. These are chiefly fruits and acid juices; and are most commonly ordered to cool the mouth and stomach, and allay that extreme thirst, which an inflammatory fever is apt to occasion. What comes under this intention, seldom has any farther effect, than giving a grateful sensation to those parts (which were before uneasy with heat and drought), unless they are taken down in large quantities; and then they may, from a sudden

chilness, make such an alteration in the pulsation of the fibres, as will shock the whole constitution. And this is in effect so much in the experience of every body from such things one time or another, that it needs no large explications; only these two consequences are most likely to happen; viz. such convulsive contractions of the vessels may either obstruct their contents, and thence cause stitches and inflammations; or may so suddenly retard the circulating juices, as will dispose them to undue cohesions and consistencies.

The other kind of coolers are such, as by their viscosity are disposed to communicate the same quality to the animal fluids, with which they are mixed. These can be prescribed in no salutary intention, unless to check the inordinate celerity of the blood, which arises from a debauch with spirituous liquors: or to give a thicker consistence to that of hectic constitutions; whereby it may be restrained

strained from flowing too fast. But in both cases there is a great deal of hazard from the same means; because the diminution of the blood's velocity cannot so exactly be restrained, but it may be carried too far, and prove too great: whereupon such substances, for want of due motion from circulation, will fall into one which is fermentative; and so by allaying one heat raise another of much worse consequence. Thro' this error, coolers, in the hands of injudicious persons, frequently change simple inflammatory fevers, which would perhaps soon go off by a critical diaphoresis, into putrid and malignant ones, which often terminate in death.

Folia, Herbs or Leaves of,

ACETOSÆ, Sorrel; called also *Oxalis*. *Rumex floribus dioicis, foliis oblongis sagittatis*. Linn. It grows in meadows and pasture grounds, as well as by culture in gardens, and flowers in May. It is well known in our common salads; and is little otherwise used. It is acid and grateful to the stomach, quenches thirst, promotes urine, and resists putrefaction. A decoction of the leaves in whey affords an agreeable drink, in fevers and inflammatory disorders.

AGNI CASTI, *Agnus Castus*, the Chaste-Tree; called also *Vitex*, and distinguished—*Foliis angustioribus, canabis modo depositis*, by C. B. and *Agnus folio non serrato*, by J. B. *Vitex Agnus Castus*. Linn. This has got a name for a cooler, and particularly of the genital parts, so as to have been prescribed to allay those inordinate motions and desires, which arise from seminal turgescency: for which intention many authors

have compositions, wherein this is a principal ingredient; and from whence they take their names. But they are not now in any esteem.

ALSINES, called also *MORSUS GALLINÆ*, Chickweed, or Hen-Bit. There are many sorts of it described by botanic writers; but the *Alsiue Media*, the middle kind, of C. B. and of Linn. is the chickweed of the shops. It grows in gardens, and in almost all manured grounds. It comes out in the winter, and flowers until midsummer. It is applied to hot, painful, and inflammatory swellings, with good success.

ANCHUSÆ, Alkanet. *Anchusa tomentosa, foliis lanceolatis obtusis, staminibus corolla brevioribus*. Linn. Its principal use is to tinge oil, and unctuous matters of a red colour; as it does very beautifully, by warm infusion. Hence some tinge the Lucatellus's balsam with it. The small roots are the best.

CICHOREI, Succory, is distinguished by botanists into a garden and a wild sort; but they differ not. It is the *Cichorium Intibus*. Linn. This plant has generally passed for a cooler; but Schroder, and after him Mr. Ray, from its bitterness, pronounce it rather on the contrary side, and will have it to be a good detergent; and upon that foot, of service in all obstructions of the viscera, and particularly of the liver; which makes it, in their account, an excellent hepatic.

CUSCUTÆ, Dodder. It is the *Cuscuta Europæa* of Linn. This grows out of, or so closely adheres to some plants (from whence it is reckoned to have its nourishment) that some have disgraced it with the names of *Herba inferni*, and

Diaboli

Diaboli intestina, i. e. Hell-weed, and Devil's-guts. Some question, whether it be properly a plant, or rather an excrescence of another. It is somewhat aperitive; and therefore reckoned amongst hepatics, and other deterfives. Hoffman observes all plants of the like manner and production to be of the same virtues. It is now hardly ever met with in any kind of composition, either officinal or extemporaneous; although taken notice of by most Dispensatory writers.

ENDIVIE, Endive. This flowers in July and August. It is very much like the succory; it is the *Cichorium Endivia*. Linn. and prescribed for all the same intentions; but reckoned rather more cooling.

LUJULÆ, Wood-forrel. This is also called *Acetocella*; which see. *Oxalis acetosella scapo uniflora, foliis ternatis obcordatis, radiæ dentata*. Linn. It grows in woods and shady places; and flowers in April and the beginning of May. It is reckoned much of the nature of common forrel; but it is not quite so sharp. Its conserve is used in electaries, and to mix species into the form and consistence of boles.

LENS PALUSTRIS, Duck-meat; called also *Lens Aquatica*. *Lemna Minor*. Linn. It grows upon ponds and stagnant waters; and by some it is recommended to cool inflammations; but the present practice takes no notice of it.

POPULI, Poplar. *Populus Nigra*. Linn. The leaves of this tree are used for the ointment in the shops, which borrows its name of Populneum from it: they are accounted cooling in that composition, but they are of no other use.

PORTULACÆ, Purslain. *Portulaca Oleracea*. Linn. This flow-

ers in June. It is very little used except in fallads; though formerly it stood recommended for a great assuager of choleric heat. It is also accounted good in the scurvy, and all cutaneous eruptions.

LACTUCÆ, Lettuce. *Lactuca Sativa*. Linn. This is also much more used in fallads than in medicines; and is found sufficiently in the gardens. It is reckoned pretty much of the nature of succory, but more cooling; whereby it inclines to sleep; upon which account it procures ease in pains; both taken inwardly, and externally applied.

SALICIS, Willow. There are several kinds of this; but none of them have any credit in the present Pharmacy. The *Salix Caprea*, Linn. or Common Sallow, is used by way of decoction, to relieve from the heartburn. And the *Salix Alba*. Linn. or Common white Willow, affords a bark which is said to vie with the Peruvian bark in the cure of intermitting fevers. See Philos. Transf. Vol. liii. p. 195.

SEDI, House-leek. *Sempervivum sectorum foliis ciliatis propaginibus patentibus*. Linn. This stands commended, by some writers, as a convenient cooler in fevers; but the present practice knows it not in any such intention. It is used in the Populneum; and in some other outward applications for burns and inflammations.

SONCHI LÆVIS, Smooth Sow-thistle. *Sonchus oleraceus pedunculis tomentosis calycibus glabris*. Linn. There is also a *Sonchus Asper*, the Prickly Sow-thistle: but neither of them are of any use in medicine; and therefore deserve no farther description or notice.

SPINACHIÆ, Spinach. *Spinacia Oleracea*. Linn. This is well enough

enough known in food; but has nothing to do in medicine, except in counterfeiting the colours of some things of value. As particularly giving to Gascoign's powder the same colour as is given by bezoar.

TARAXI, Dandelion. *Leontodon calyce squamis inferne reflexis, foliis runcinatis denticulatis lævibus.* Linn. This is much like the endive and succory; though somewhat more cooling. It flowers in April and May. It absterges, opens, and is a good hepatic. It operates chiefly by urine. A decoction of the whole plant is frequently used.

UMBILICI MURALIS, Wall Navel-wort. *Cotyledon Hispanica.* Linn. This is not known of late in medicine, except in the Populneum; and is the true and only fort which ought to be in that composition; the other, *Umbilicus Veneris*, being of a contrary quality: although, as the ingredients for that ointment are generally dispersed in the markets and physic gardens, the rough fort is put for both, that being in most plenty, and few being curious enough to distinguish one from the other.

SEMINA CANNABIS, Hempseed. *Cannabis Sativa.* Linn. This is very rarely met with in use. By expression it yields much oil, which in the form of emulsion is useful in coughs, heat of urine, &c.

Fruetus, Fruit of,

AGRESTÆ, unripe Wild Grapes. The juice of these is the *Omphacinum* of the ancients; as their *Oleum Omphacinum* was the expressed oil from unripe olives. They used to expose the grapes to the sun some days, and then press out their juice into large vats; and in the

time of Dioscorides they used to let it stand open in them, exposed to the sun, till most of the humidity was exhaled, and the remainder inspissated into a rob; a form much used among the ancients. This is reckoned a cooler; but hath little or no place in our present Pharmacy.

AURANTIORUM, Oranges. N. B. The small dry fort, of which peas are made, are the *Aurantium Curaflavense, sive aurantia enascentia immatura.*

LIMONUM, Lemon.

CITRI, Citrons. These are well enough known to all people. They are the *Citrus Citrus-aurantium*, and *Citrus-limon* of Linn. They very much agree in their medicinal virtues; only the lemons are somewhat the sharpest and most efficacious. Their juices are wonderfully grateful to the stomach; and very proper to allay drought in fevers, and any disorders attended with that symptom. They are very good to take nauseas from the stomach; and stop vomiting which proceed from a redundance of choler. The lemon-juice wonderfully astringes and hardens the fibres in the stomach; which makes it greatly assisting in digestion: and there is hardly any one thing, which better enables it to retain its food without regurgitation, after hearty eating.

CUCUMERUM, Cucumbers. *Cucumi sativus.* These are sufficiently known in food, both raw and in pickle. They are very cooling and viscid; and therefore apt to dispose the blood to putrid fermentations; insomuch, that it is to be feared these have no small share in occasioning those ugly fevers which appear at the latter end

of

of the year, and are often of a malignant kind. They do well therefore, who dress them with a good quantity of vinegar and pepper; for as the former helps to keep up the due tenfity and contraction of the folids; the other preserves the proper fluidity of the juices, and prevents them from running into morbid cohesions. They are likewise pretty well secured against the above mentioned mischiefs by pickling, with the like ingredients. They are of little or no use in any officinal compositions, or occasional prescriptions; only as their seeds are sometimes in emulsions, and stand the first amongst the four greater cold seeds.

CUCURBITÆ, Gourd. *Cucurbita Aspera*. Linn. This fruit seems to be of the same species of the former: and grows in the same manner, but larger. It is of no use in medicine, unless for the seeds, which are also of the four greater cold ones.

GROSSULARIÆ, Goose-berries. *Ribes Grossularia*. Linn. These are by all known to be a grateful cooling fruit, and very wholesome, if eat in moderation. There is a great deal of difference between what they are when green, at which time they are used for baking, &c. and when ripe enough to eat as they come from the tree; the former are much more acid, cooling and astringent; and the latter more inclining to viscidty, and likely to produce disorders, which the common people call surfeits.

MALI ARMENIACÆ, Apricot. *Prunus Armeniaca*. Linn. This is a fine fruit, and if not too ripe, or too mellow, as it is usually called, agreeably astringes and strengthens the stomach.

MALI PERSICÆ, Peaches. *Amygdalus-Perfica*. Linn. This is much of the same nature as the former, but hardly so restraining. Of the same kind is also the nectarine, a fruit now much known in our gardens.

MALORUM HORTENSIIUM omnium, *Pyrus-malus*. Linn. all Orchard Apples. These generally agree in the common property of cooling and assuaging thirst; tho' they somewhat differ in degree, as they are more or less acid or austere. Those are most wholesome which most abound with this last property, because that maintains the due tenfity of the fibres; and prevents their corrupting with the animal juices. These make a very good part of our food in the summer time, when the heat evaporates so much of the animal moisture, as would be insupportable to the constitution, were it not frequently refreshed with the grateful sensations which such coolers produce.

MALI SYLVESTRIS, Crabs. *Pyrus-malus Sylvestris*. Linn. These are so extremely sour, and restraining upon the palate, as not to be eaten raw; they are therefore used only for their expressed juice, which serves in some countries instead of vinegar, and is much of the same virtue. It is sold by the name of verjuice; and makes, in many cases, a very good gargarism.

MELONES, Melons. *Cucumis-melo*. Linn. These differ not much from the cucumber, either in property or manner of production; only as they are a larger fruit, and somewhat more delicate. The seeds also are another of the four greater cold seeds.

MORI, Mulberries. *Morus fructu*

Nigro. Linn. These afford a great austere juice, and are used pretty much in the shops for the syrup which is made of them, and bears their name. It both cools and astringes the stomach; and is often an ingredient in gargarisms, for its deterfive roughness. If the fruit hangs until it is too mellow, it grows more slimy, and is not so good.

OLIVÆ, Olives. *Olea Sativa*. Linn. These are not the produce of our own country; but come to us in pickle, chiefly in salt water. They are very oily and smooth; and are therefore not so good for the stomach; being apt to pall and relax it too much, as most things of the like properties generally do. It is from the same fruit we have

the oil of olives, so much in use: the virtues of which we shall consider in the thirteenth Section.

RIBESIÆ, Currants. *Ribes Hortense*. Linn. These are of many sorts; but the red and white only are in use: unless for some very singular purposes. For the black, and chiefly the leaves upon first coming out, are used by some to flavour English spirits, and counterfeit French brandy. The red and white are very agreeably acid, and accounted as wholesome fruit as any we have of our own growth. They greatly assuage drought, cool and fortify the stomach, and help digestion. No harm can be received from them unless eat in too great quantities.

S E C T. XII.

Of Simples used in Topics, or external Applications.

IN this division, the reader will meet with several of the simples, which have been placed under the foregoing heads for some internal intentions; but the great share they have in external applications, may justify the repetition. The materials which necessarily

come into this rank, are so few, without such as, for more important efficacies, have been already taken notice of in some other, that we have made the number of subdivisions, expressive of the intentions of what they contain, as small as possible.

Class 1. *Of Repellents.*

To understand rightly the operation of such simples as will occur under this head, it may be necessary to observe, that by repelling is meant those means which prevent such an afflux of a fluid to any particular part, as would raise it into a tumour: but to know how this may be effected, it will

be convenient to attend to the several causes which can produce a swelling, or force out of the vessels any of their fluid contents by some unnatural discharge.

All tumours have necessarily one of these in their cause; either an increase in the velocity or quantity of the fluids; or a weakness

ness in some particular part; and sometimes both concur. An increase in the velocity of the fluids makes them more forcibly push against and distend all the parts in their circuit: if therefore any part be unequally pressed, or relaxed by external injuries, that will be more elevated than any other; and for want of equal resistance with the rest of the body, will, at length, receive such a quantity of fluid, as will raise it into a tumour; especially if any of its vessels be obstructed: because the protrusion of fresh matter *à tergo* will continue to add thereto, until the part is upon the utmost stretch, and can hold no more. In this case all those means are said to be repellent, which check the growth of the tumour; and assist the reflux blood in taking up the obstructed matter, and washing it again into the common stream. This intention is chiefly favoured by evacuation and revulsion; for whatsoever lessens the quantity of the fluid, will diminish the force upon the tumefied part: but it concerns us most here to know, how external application to the part itself helps in this affair.

Now a medicine comes to be a repellent in this case, by consisting of such subtile parts, as may transmit some of them thro' the pores, and help to render the obstructed matter more fluid; so that it becomes the more easy to be loosened and fall again into the circulating current. But in this case there is a hazard of such things likewise putting the obstructed humour into a ferment; whereby it sooner turns into pus, and then they come under the denomination of Suppuratives or Ripeners. What

therefore, in the most strict sense, is to be reputed a repeller, is that which astringes and strengthens the part, so as to make it resist such lodgments. These are such, whose virtues reside in their coldness, and drying properties. But there are so very few instances wherein bandage is not better than such application, that very little comes to be used for that purpose. In hæmorrhages and ouzings out of serum, so as to deform the skin, simples of this nature mostly take place, which answer their ends by astringing the fibres; whence those apertures are so closed as not afterwards to admit through them any such fluid.

Some things also answer this end only by stimulating the fibres of the tumefied part; so as to give them sudden and forcible twitches, whereby the obstruction is sometimes loosened and shook, as it were, away into the influent current. Such a sort of motion will be occasioned by the sudden application of any thing extremely cold, as common water: but the practice is seldom safe; because, if the first efforts, which the fibres are put upon by those means, do not succeed in breaking away the inclosed matter, they will be strained, and not able afterwards to repeat their natural vibrations; the consequence of which is weakening the part, which will render the tumour more obstinate. There are many other means and accidental circumstances, which contribute to favour or retard this intention: but these hints may be sufficient; especially for a part which cannot be allowed any great length in this work.

ALBUMEN OVI, White of an Egg. This is of a glutinous binding

binding quality; and therefore is often mixed with bole, and other things of the like nature, to defend any strained part from distention and elevation into a tumour; and to restore it to its due tone and elasticity; as likewise under convenient bandage and compression, to prevent the luxation of bones after reduction. It is used also in some mixtures for consolidating fresh wounds, and preventing too great an effusion of blood.

LAPIS CALAMINARIS, Calamine. This has been already mentioned under Class 3. Section 2. as an absorbent. Externally it is used in collyria against inflammations of the eyes; and in cerates to cool, and, in some measure, deterge foul ulcers.

CERUSSA, White Lead. This is a preparation of lead, whose virtues we shall consider amongst the preparations of that metal, at the latter end of this part; as also in the following.

LITHARGYRUS AURI, Litharge of Gold. It generally is called thus for its colour sake; though it arises in the purification of silver; and therefore ought more properly to be named Litharge of Silver. It is much used in emplasters; and boiled with oil dissolves in it, and gives it a proper consistence; as in the diachylon. It is reckoned to be cooling; and to give a tenacity to the parts upon which it is applied; and therefore it is accounted a repellent; although it is also in some compositions of other intentions.

MINIUM, Red-Lead. This is lead calcined, as we shall show under the preparations of lead, and we shall also give its virtues there.

LAPIS TUTIÆ, Tutty. A calx

or sublimate of zinc, produced in the furnaces where zinc is fused with other metals, or copper made into brass, by calamine, the ore of zinc: it is found adhering to certain cylindrical bodies placed in the upper part of the furnace for that purpose; from these it receives its tubulated figure. It is moderately hard and ponderous. of a brownish colour, and full of small protuberances on the outside, smooth and yellowish within; some pieces have a bluish cast, from minute globules of zinc being thrown up by the heat in its metallic form. Tutty is celebrated as an opthalmic, and frequently employed as such in unguents and collyria.

POMRHOLYX This is a metallic powder, of a white colour, and lighter than tutty; for as that, in the making of brass, adheres to the sides of the furnace, this mounts up to the top. Its virtues are the same with those of tutty.

SEDUM, House-Loek. This has been mentioned in inward use. We took notice of it in Sect. 11. but it is very little used that way; nor even in external applications, only amongst the common people, who have got a way of managing it into an ointment with cream, for burns and inflammations.

TELIA ARANEARUM, Cobweb. Every one knows what this is, and how produced. It appears not in medicinal prescriptions; but as accident, for want of other helps, has taught its use to common people for stopping blood in a fresh wound. And this it seems to do by its extraordinary fineness; which makes it adhere to, and stop up the mouths of the vessels, so as to prevent the effusion of their contents.

Class 2. *Of Suppuratives and Digestives.*

This intention is frequently of mighty importance in chirurgery; but there are very few who well weigh the consequences of the operation in those medicines which are prescribed to answer it; nor the accidents to which they are liable. For a ripener or drawer is what, by the activity and warmth of its parts, is able to penetrate the pores, and mix with and rarify any obstructed matter; so that it may be rendered fit for discharge upon laying open the part, by a caustic or incision. Now in many instances, as the matter by this means rarifies and grows more fluid, the reflux blood is apt to wash it back into the common mass; which sometimes is of that nature as to do a great deal of mischief; or by making it take up more room upon its rarefaction, occasions it more to distend the parts in which it is contained; whereon a sense of pain is excited, and thereby a greater concurrence of fluid, and consequently a needless increase of the tumour. So that medicines under this denomination require to be in the hands only of such, who are so well acquainted with the mechanism of the animal œconomy, as to be able to apply them to the best advantage; and know how to avoid the hazards which may arise from their abuse.

ADEPS ANSERIS, Fat of a goose.

CANIS, of a dog.

HOMINIS, of a man.

VIPERÆ, of a viper.

URSI, of a bear.

These are all to be met with in this intention; because they are

reckoned to be of a penetrating nature; and therefore suited to dissolve and rarify the inclosed humours; and bring them, as it is called, to maturity. A great variety of fats were introduced into medicine by the Arabians. There are some specific virtues ascribed to those fats in particular cases; but they have not been supported by reason or experience. And they seem not possessed of any properties different from other substances of like kind, unless what may arise out of their different consistencies, and degrees of volatility. They have all one common emollient quality; they relax the part to which they are applied, and prevent perspiration: these effects, with the consequences of them, may be expected in a greater or less degree, from fats of every kind. The fat of the viper seems to have the most right to claim something extraordinary upon this account. Dr. Mead, in his essay upon this animal, having inquired into the many ways of curing the viperine poison, which is inflicted by a bite; he tells us, that the viper-catchers have a remedy far beyond them all; and in which they place so great confidence, as to be no more afraid of a bite, than of a common puncture; immediately curing themselves with this fat, which they value in such cases as a specific; as he discovered upon the strictest inquiry. But to be convinced himself farther of the truth, in so important a point, the doctor enraged a viper, and caused it to bite a young dog by the nose; both

the teeth were struck deep in; he howled bitterly, the part began to swell; but upon application of some of the axungia, which was ready at hand, he was very well the next day.

But because some gentlemen, who saw this experiment, were apt to impute the cure rather to the dog's spittle (he licking the wound) than to the virtue of the fat, he was caused to be bit again in the tongue; upon which, forbearing the use of this remedy, he died within four or five hours. The same trial was made another time with like success; which the doctor ascribed to the clammy and viscid parts of the fat; though withal it was more penetrating and active than other oily substances. For by this property he supposes it to involve, and as it were sheathe the volatile salts of the venom, so as to prevent their shooting into those *spiculæ*, which were observed to be the instruments of those deadly mischiefs following the bite.

The London College hath retained only three fats, of different consistencies, for different mixtures, viz. viper's fat, hog's lard, and mutton suet; these certainly will answer all the intentions that substances of this kind are employed for.

FURFUR, Bran. This is used likewise in cataplasms.

If bran is scalded with boiling water, and hath a small quantity of hog's lard added to it, it might save the waste of bread, in cataplasms; and also the expence which the poor can ill spare.

FLOS CEREVISIÆ, Yeast. By the common use this is put to in raising other bodies into fermentation, as well as from the man-

ner of its production, may easily be conceived how it comes by the denomination of a drawer. For, by the subtilty of those spirituous parts with which it abounds, it cannot but transmit a great many of them into the part to which it is applied; and there, by rarifying the inclosed humours, dispose them to what is called maturation.

HALZC, a Herring. This fish, as it is in pickle, is often prescribed in a cataplasm to the feet in fevers; because it is reckoned to draw the humours downward, and thereby relieve the head. But such a property seems more likely to arise from the salt which is used in the pickle, than from the virtues of the fish; for the heat of that part will put the saline particles into motion, which by vellicating the fibres, that are very sensible in the soles of the feet, occasion a greater derivation of fluid that way; and thereby make a revulsion from other parts.

HIRUDO, a Leech. The use of this is commonly enough known. They are convenient sometimes to draw blood from a particular part, as the temple, hæmorrhoidal veins, and where the lancet cannot be well used: as likewise from young children; whose veins seem too small to admit of puncture by an instrument with safety. It is the general opinion, that these are good to draw away the humours from any particular part, especially if it be much pained; and under this notion they are applied to the gums for the tooth-ach. But in some habits of body, and peculiar disposition of humours, they occasion such a derivation to the part sucked, as to raise great swellings, and

sometimes an erysipelas. They ought not therefore to be used inadvertently, and without proper advice.

MELILOTUS, Melilot. This was mentioned before, Sect. 4. Class 3. but its use being chiefly external, we judged it proper to take notice of it again here, upon that account. It is the principal ingredient in the plaster which has its name from it in the shops. It consists of warm subtil parts; as is manifest by the very scent of the plant; and upon that foot comes under the head of ripeners. It is mostly employed in dressing blisters until they cease running, and skin over: for its warmth still promotes the discharge, and prevents mortification; which in some constitutions they are very liable to; especially if dressed with things that are cooling; which the heat of the part frequently provokes persons very injudiciously to venture upon.

NICOTIANA, Tobacco. Although this has been mentioned before, both as a sternutatory, Sect. 9. and as a narcotic, Sect. 10. yet it deserves also to be considered particularly as a topic; being of more real use that way than any other in medicinal intentions. It is so hot and penetrating, as to yield to none of this rank as a drawer or ripener; especially when we consider that, at the same time it gives this disposition to the enclosed humours, it also quiets and soothes the parts with its narcotic qualities; whereby the irritation is prevented, which many of this tribe too much occasion. Upon this account it is frequently of great service where there are sharp pains, attended with a tumour; and particularly in those of the

rheumatism and gout. The least bound upon the part, is the best way of applying it; especially if it be rubbed over first with a little oil.

OLEUM, Oil. Hereby is meant only the common oil of olives. Some oleous and fat substances prove ripeners: as those first mentioned under this head, by their having something in them subtil and penetrating: but this lays claim to the same title upon a different account; proving so only by relaxing the tumified part; and thereby giving more room for the enclosed humours to expand and rarefy; upon which they sooner come to maturation. And for this very reason it is judiciously practised, to mix with all cataplasms, of this intention, some oleous materials; because by such means the part is kept supple and lax, and more vent given for the humours either to transpire, or turn into matter, fit for an artificial discharge, by a caustic or incision.

PIX BURGUNDICA, Burgundy Pitch.

PIX NAVALIS, Common Pitch.

RESINA, Resin. Essential oils, indurated by age or acids, are called resins; also, when the indurated mass, or when turpentine, or other natural balsams, have by heat or time lost their essential oils, the gross matter left behind, is thus named. These prove ripeners or drawers, after a manner peculiar to all hard adhesive bodies: which is by sticking so close to the part affected, that they stop the transpiration of the common perspirable matter through the scarf-skin, or cuticula. The consequence of which is, that such commingled matter returns with some

some degree of force, and at last, by a tendency to move the same way, occasions such frequent encounters and occurrences, as will by degrees attenuate and dislodge the obstructed humours; whereby they either suppurate into matter, or are propelled through the true skin; and for want of room, by means of the plaster, to get farther, they elevate the cuticula from it into a blister; and lie collected between both, in the form of a thick serum or jelly. And this is the reason why such substances, applied to any part undisturbed, will often raise blisters; as it is frequently practised to make revulsions, in some pains of the head, defluxions, and sore inflamed eyes. These are more or less in the composition of most officinal plasters; because they give a due consistence, and are a kind of cement to other ingredients: as is also the bees-wax; which seems indeed to be of this class upon a double account; both as it sends somewhat into the included juices, in the same manner as many things already explained under this head; and also by its sticking, though not so strongly as the ingredients under these articles.

Resins dissolve in spirit of wine, in oil, both expressed and essential, and may be united with water, by the intervention of gum, or such other intermedia as render fluid oils miscible with water.

SEVUM CERVINUM, Deer's Suet.
BOVINUM, Ox's.

OVINUM, Sheep's. These stand in the catalogue of medicinal simples, much upon the same account; and can hardly be distinguished in their efficacy, in any intention, from what were assigned before to oil, No. 556. only these seem somewhat more to ap-

proach to the bees-wax; and therefore may not quite so much, or soon, relax as oil; and they may have some small share of subtilty, or what is volatile (as indeed most animal fats have) whereby they enter into the pores, and assist also that way, in bringing the destined humours to maturity. The common axungia, or lard, is likewise for the same reason more a ripener than any vegetable expressed oil; although it does also, as oil, assist by relaxing the fibres, and giving the part larger dimensions. This holds good in all animal oils, or fats, that they are more penetrating than such as are expressed from vegetable substances; because by reason of a stronger digestion they are in themselves more subtile; and have also wrapt up in them some portion of a volatile animal salt; which makes them more effectual in this intention.

THUS, Frankincense. The produce of the tree that yields the *Terebinthina Vulgaris*. This comes to us of different consistencies and colours; some being hard and more brittle, and others so soft as to run; that is, too fluid to keep in any form upon a plane; as being almost like a thick turpentine. The former sort some distinguish to be a male frankincense; and take it to be the officinal *Olibanum*, described Sect. 2. Class 1. And the latter, thus *fæmineum*, or female frankincense. But both sorts fall in with this intention, by having somewhat considerably penetrating and warm in them; whereby the inclosed humours are agitated, divided and dislodged, so as to forward their maturation, or ablution into the resluent current. This drug also is very adhesive, and sticks close

to the skin, either by itself, or in that on that account also it for-
the composition of emplasters; so wards the same end.

Class 3. *Of Detergents.*

The operation of all topics of this denomination, may be understood by what has been said in explication of the third Class of the fourth Section, concerning Vulneraries, page 114, and the following of Detergent, page 121. The reader is therefore desired to turn back thither, for what concerns this class.

ÆRUGO ÆRIS, Verdigris. This is a solution of copper, the manner of which will be taught under the article of copper, amongst the preparations of simples, at the latter end of this part; as also its use in medicine.

GUMMI ELEMI. This gum is the produce of the *Hymenæa Courbaril*, Linn. This claims a place under this class, upon the merit of the *Linimentum Arcae*; or *Unguentum e Gummi Elemi*, in which it is a principal ingredient; and is in great account in surgical practice, for a digester: but it is little met with elsewhere.

OS SEPIÆ, Scuttle-fish Bone. This is white and spongy, and seems almost to be calcined by the sun. It is rough and absterfise, and used chiefly as a dentifrice; for it wonderfully cleanses the gums, and whitens the teeth. Some commend it in inward uses; but it is now never met with in prescriptions of that kind.

VITELLUM OVI, Yolk of an Egg. This is frequently mixed with the turpentine, upon account of its glutinous incarnative qualities. For in some intentions the

turpentine deterge too much, and draw off the nutritious matter as well as what is morbid. This therefore moderates, in some measure, the violence of their action.

TEREBINTHINÆ & BALSAMA OMNIA, All Turpentine and Balsams. These all come under this head; and are more or less deterfise, as they more or less abound with warm, aromatic, and subtile particles. Some of them are too cleansing; and therefore the yolk of an egg, as was taken notice of under the preceding article, is mixed with them, to check their activity; medicines of this tribe sometimes incarnate too fast, and fill up the ulcer with a fungus, or what is commonly called proud flesh; which brings on a necessity for the subsequent class. Besides what has been already said under the different kinds of turpentine above, which was chiefly extracted from authors who wrote some time ago, it may be acceptable to acquaint the reader, that our New England traders have found out ways to imitate, or come up very near to the finest turpentine and balsams of the East, from trees of their own growth; insomuch that not many have skill enough to distinguish them; though the true Balm of Gilead, the Chio, and Strasburg Turpentine, are yet singular in their chief characteristics, particularly their delicacy of flavour. The counterfeits which some make here, are knowable in a little time keeping, by a separation of them into thinner parts, almost

almost like an oil, and thicker like a coagulum. All the turpentine of late vended for the Venice sort, hath been thus manufactured from the common turpentine; but that

from Strasburg will not easily admit of such adulteration, without being discovered at first sight; its greenish colour, and peculiar fragrance, being almost inimitable.

Class 4. Of Caustics.

These are such things as by their violent activity, and heat thence occasioned, destroy the texture of the part itself to which they are applied; and eat it away, as we commonly express it, or burn it into an eschar. Ripeners and detergers have something soft and smooth in their compositions, which guards them against wounding the fibres themselves: but in those we call caustics, the acrid parts are altogether unguarded by any thing of that kind; and by their extreme minuteness, asperity, and quantity of motion, like those of fire itself, tear asunder all obstacles, destroy the texture of the very solids themselves, and change what they are applied to, into a substance like burnt flesh; which in a little time, with detergent dressings, falls quite off, and leaves a vacuity in the substance of the part. These are of use generally in abscesses and imposthumations, to eat through to the suppurated matter, and give it vent; and also to make sinues in parts where cutting is difficult or inconvenient. We have ranked some things under this head which do not come up to so great a degree of efficacy as to make an eschar; but because they are able to raise the flesh into blisters, and make considerable changes by the same manner of operation, in a more remiss degree, we thought it most proper to give them a place here.

CALX VIVA, Quick-lime. The water in which it is flaked, as the usual term is, partakes so much of its hot drying nature, as to be wonderfully good in washing and cleansing some soughly foul ulcers, as also tetterous eruptions; its alkaline salts, made so by calcination, greatly destroying those acidities which ouze out and deform the skin. It is also used in internal prescription, as a drier or an absorbent, on account of the same qualities. The ingredients therefore for diet-drinks of the woods, are frequently boiled in it. It is accounted one of the best remedies in a diabetes; for reasons which the reader may find in Dr. Keil's book of animal secretion, too long to be inserted here; it is likewise of great service in fluxes, especially from an acid cause. The lime-water made with calcined oyster-shells is a powerful dissolvent of the human calculus, if drank from one to three pints a-day, and continued a length of time.

CANTHARIDES, Spanish Flies. They raise blisters by their pungency and activity; for stimulating the cutaneous fibres, they occasion a greater derivation of fluids to that part: which passing the skin, and not being able to penetrate the cuticle, they divide them, and elevate the latter up into a blister, as has been already hinted, page 152. The subtilty of this is manifest from their entering

into the blood in such quantities, when only externally applied, as are sufficiently felt beyond the kidneys, and often occasions strangueries, and great heat of urine. Cantharides taken internally, often occasion a discharge of blood by urine, with exquisite pain: if the dose is considerable, they seem to inflame and exulcerate the whole intestinal canal; the stools become mucous and purulent; the breath fetid and cadaverous; intense pains are felt in the lower belly; the patient faints, grows giddy, raving mad, and dies. All these terrible consequences have sometimes happened from a few grains: Herman relates, that he has known a quarter of a grain inflame the kidneys, and occasion bloody urine with violent pain. There are, nevertheless, cases in which this stimulating fly, given in larger doses, proves not only safe, but of singular efficacy for the cure of diseases that yield little to medicines of a milder class. In cold phlegmatic sluggish habits, where the viscera are overloaded, and the kidneys and ureters obstructed with thick viscid mucous matter, cantharides have excellent effects; here the abounding mucus defends the solids from the acrimony of the fly, till it is itself expelled; when the medicine ought to be immediately discontinued. Groenvelt employed cantharides with great success in dropsies, obstinate suppressions of urine, and ulcerations of the bladder; giving very considerable doses made into boluses with camphor: and interposing large draughts of emulsions, milk, and the like: by this means, the excessive irritation which they would otherwise have occasioned, was in a great measure prevented. Cantharides are some-

times managed so as to open issues, but it is a painful and uncertain way. By the same management issues may be provoked to make the greater discharges; the least particle being put at the bottom of the pea: or touching the pea with an unguent, that has some of them in its composition.

CATAPUTIA, Spurge. The juice of this plant, which looks white like milk, will, applied to the skin, corrode it into an eschar; but it is seldom used in any medicinal forms. The common people use the ordinary tithimal, or spurge, to eat off warts; which it will do by frequent application, if the crust, which hardens upon them, be pared off between whiles.

LEPIDIUM, Dittander; called also *Piperitis*; and distinguished *Latifolium* by Linnæus. It grows on the banks of rivers; and Dioscorides affirms, that it is good externally applied in ischiadic pains; but the present Pharmacy knows nothing of it.

EUPHORBIIUM. We mentioned this amongst the sternutatories, Sect. 9. but its wonderful subtilty and heat sometimes give it a place in external compositions, which are intended for powerful stimuli, and to make a derivation of serous humours to the parts where it is applied. Upon this foot it is an ingredient in the *Emplastrum Cephalicum*, of the former College Dispensatories; which is laid upon the head to draw out serous humours, and make a revulsion from those glands which suffer by the continual drain of rheum, in common defluxions and catarrhs. The same compound is also prescribed to be applied to the feet in fevers, for the like property.

GOSSIPIUM, Cotton. This in no respect has a claim to this class for any medicinal virtue; but it is sometimes ordered to be burnt upon the parts afflicted with the gout; in which cases its operation is to be accounted for in the same manner as that of fire or quick-lime; it having no efficacy but from its burning. Of the effects of ustion you will find a good account, at page 143, of Van Horne's *Microtechnie*.

MOXA. This is a sort of down from the Chinese mugwort; it is put to the same use as the former, and operating by the same means only. The notice Sir William Temple has taken of this in one of his essays, gave it credit enough to be talked of for some time; but I cannot find that any success from trial made with it has yet encouraged it to be brought into practice. See *Artemisia*.

SILICUA HIRSUTA, Cow-itch. This stands in some catalogues of medicinal simples; but seems good for nothing; and is of no use but to gratify wanton people in playing tricks with it. It is brought to us from the East Indies; and is a down, or hairy substance, growing on the outside of the pod of the *Phaseolus Zurratensis siliquâ hirsutâ*. It is so pointed, as like a nettle to sting the flesh, but not with so painful a sensation; this causing only an itching; which continues so long, and at last will grow so troublesome, as to excite much pain in rubbing to allay it; so that it frequently occasions a flux of humours to the parts.

TITHYMALUS, Sun-spurge. *Euphorbia umbella quinquefida; tri-*

fida; dichotoma, involuclis obovatis, fol. cuneiformibus serratis. Linn. Its acrimony is not inferior to that of any of the spurges, hence it is often applied to warts, (whence it is called Wartwort) for the purpose of destroying them. Its milky juice only is applied to the wart.

SAPO, Soap. What we mean here, is the black soap, which has so much of the pot-ash lixivium in it, that it is extremely penetrating; and this makes it much ordered in cataplasms, to be applied to the soles of the feet in fevers. It is so very searching also, as to reach even the seat of the gout in the joints; and cause sometimes the exudation of a great deal of serous matter. But the severity of its operation in such cases, render it hardly to be bore; and therefore some have procured skill to allay it with a convenient mixture of opium, and such unguents as the *Populneum*; but this is not for unskilful persons to meddle with.

SPONGIA, Sponge. We have rather subjoined this to the class of caustics, than made it a part of them. Its use in chirurgery thus far agreeing with the former, that they are all designed to drain, or make discharge of some humours. This is used for such purposes as a tent, to dilate the orifices of fistulas, or of any abscesses which are too narrow to make a proper evacuation. And this it does by being put in dry; because filling with the moisture of the part, it swells, and gradually thrusts wider the place it was put into.

S E C T. XIII.

Simples omitted, or not reducible under the former Heads.

ALCEA, Vervain Mallow. *Malva Alcea*. Linn. Of the several kinds of this, that referred to by our officinal prescriptions, is the *Vulgaris Major*, the greater Vervain Mallow of C. B. Its virtues are inferior though similar to those of the common mallow.

AMOMUM, *Amomum*. It is very much in doubt what was the true amomum of the ancients; some will have it to be the Palestine rose, and Clusius describes many plants under this name, which by no means agree with those described under the same name by Dioscorides. The shops shew two kinds of seed, having the same title; one of which is larger, blackish, and round, like pepper, or cubeb, with a biting taste, and seems to have been the sison, or sinon, of the ancients; the other is small and paler: but they are both very little used; and most substitute acorus, or sweet flag-roots in their room. The London College allows of the seeds, either of the true ammonum, or the bastard stone-parsley.

AMORIS POMUM, Love-apple. *Solanum-lycopersicum Galeni*. Linn. This is distinguished by J. Bauhine, *Malum aureum odore foetido*, the stinking golden apple; and is the same as others call *Lycopersicon*, the wolf's peach. But it is now so little, if at all used in medicine, that it deserves no farther notice.

AMYLUM, Starch, is a commonly known thing, made from wheat-flour: it is used in some few officinal prescriptions; particularly in glysters. In most instances, if starch-jelly, with agreeable additions, was substituted for calves-feet jelly, the patient would be a considerable gainer by it.

ANTIMONIUM, Antimony, is a semi-metal, or rather the ore of a metal; for it consists of common sulphur, and a reguline part which is the proper metal. This mineral is of no use in medicine in its crude state; but being prepared, by the separation of the sulphur from the metalline part, it affords remedies of great power and efficacy: by different treatment, it yields strong emetics, and cathartics: and one preparation which has the name of diaphoretic; but that it has any certain quality of causing sweat is very dubious. There are other preparations of antimony likewise in the hands of particular persons, to which the same property is attributed; but they have given little reason hitherto, from any clear experience, to place any great confidence in their pretensions. As the operations of antimonial medicines are greatly varied by slight differences in the preparation, and are thence very uncertain, and in many cases violent, the use of them in regular practice has prevailed but little hitherto; though it appears, from instances in the practice of an eminent

ment empiric, that many things are to be performed by a daring use of it, that cannot be effected by any of the means received in the authorized practice.

ARBOR VITÆ, the Tree of Life. This, according to C. Bauhine, is the Thuya of Theophrastus, *Thuia*, Linn. but is little known in modern Pharmacy.

ARECA, Linn. the Indian Nut; distinguished by C. Bauhine, *Palma cujus fructus sessilis Faufel dicitur*; the palm tree, whose squat fruit is called Faufel. But it is altogether neglected by the present Pharmacy.

ARGENTUM, Silver. There is little to be said of this metal, considered as a part of the *Materia Medica*, since only one instance of its use occurs in the modern Pharmacy, viz. the lunar caustic.

AURUM, Gold. This metal is of no use in the present Pharmacy, nor of any preparations, to which great virtues have been attributed by pretenders of chemical secrets, nor are there any remaining in the modern Dispensatories.

AGARICUS *pedis equini facie*, Tourn. Female Agaric, or Agaric of the Oak, called from its being very easily inflammable, touch wood or spunk. It is the *Boletus acaulis pulvinatus* Lewis, *poris tenuissimis*. Linn. This fungus is frequently met with, on different kinds of trees in England; and has been sometimes brought into the shops mixed with the true agaric of the larch: from this it is easily distinguishable by its greater weight, dusky colour, and mucilaginous taste, void of bitterness. The medullary part of this fungus, beat soft, and applied externally, has been of late greatly celebrated as a styptic, and said to restrain not

only venal but arterial hæmorrhages, without the use of ligature.

BAMIA MOSCHATA, Muskmallow, or Mosch-seed, is a species of the alcea, or vervain-mallow. It is called *Bamia Egyptica Moschata*, by Parkinson; — *Egyptiaca villosa*, by C. B. *Hibiscus Abelmoschus*. Linn. The Egyptians were said to use it to strengthen the brain, and as a great cordial. Most botanists agree, that the Bang, with which the Indians intoxicate themselves, and play strange tricks under its influence, is a species also of the alcea; being called *Alcea Indica Cannabina folio*, by Dr. Paul Herman, who lived a great while in India. But Dr. Tancred Robinson will have it a genuine species of the Cannabis, or hemp: however, none of these distinctions enter into our Pharmacy.

BISMUTHUM, Bismuth. This is of no use in the present Pharmacy, except in two preparations; the flowers, and magistery; which are used abroad, particularly in Spain, as cosmetics.

BUTYRUM, Butter. This is seldom met with in medicinal prescriptions. Every one knows the use of it in food. By the texture and nature of its substance, it tends to relax the solids; and supplies the juices with particles light and adhesive. Upon the first account, it may be good in dry and costive constitutions; but must be hurtful in lax, moist, and corpulent ones. By the levity and tenacity of its parts, it is also very apt to stop in the glands and capillaries; whereby it fouls the viscera, but particularly the small glands of the skin: hence it is apt to produce blotches, and all cutaneous

aneous deformities. And this opinion is much confirmed by the experience of all whose business has made them conversant with young children; they having much of this in their diet; whereby they have been observed to grow weakly, corpulent, big-bellied, and very subject to breaking out, and to breed lice, and such like uncleanlinesses; but upon restraining them from it, without any other visible means, they have out-grown all those inconveniences. Oil of olives is much of the same nature as butter; and is used in countries which abound with it for the same purpose.

CASEUS, Cheese. This is somewhat of the same nature as the former; consisting of light, tough, viscid parts; which, for the same reason as given before, will occasion obstructions with their consequences: but in this respect cheese is not so liable to those inconveniences as the other; because of the subtil acid which it has from the rennet, and gives it a warm biting taste, and makes it more easy of digestion and comminution. However, therefore, the palate may be prejudiced, yet without doubt that is the wholesomest which is the strongest, as we usually say of the rennet. Though indeed all the sorts tend to viscidities; and are therefore bad in all cases which arise from such a state of blood: but particularly in disorders of the breast, as pleurifies and asthmas.

CARPOBALSAMUM. This is the fruit of the tree that yields the balm of Gilead. *Balsamum Syriacum rutæfolio*, C. B. It is about the size of a pea, of a whitish colour, inclosed in a dark brown wrinkled bark. This fruit, when

in perfection, has a pleasant warm glowing taste, and a fragrant smell, resembling that of the opobalsamum itself. It is very rarely found in the shops; and such as we now and then do meet with, has almost entirely lost its smell and taste. It is of no other use in this country than as an ingredient in the mithridate and theriaca, in both which the college substitute cubeb in its room.

CERA FLAVA, Yellow Bees-wax. This is a solid concrete obtained from the honey-combs after the honey is got out, by heating and pressing them betwixt iron plates. The best sort is of a lively yellow colour, and an agreeable smell, somewhat like that of honey: when new, it is toughish, yet easy to break; by age it becomes harder and more brittle, loses its fine colour, and in great measure its smell.

CERA ALBA, White-wax is prepared from the yellow, by reducing it into thin flakes, and exposing it for a length of time to the air; when sufficiently bleached, it is melted, and cast into cakes. The best sort is of a clear and almost transparent whiteness, a light agreeable smell like that of the yellow wax, but much weaker.

The chief medical use of wax is in cerates, plasters, unguents, &c.

CINERES RUSSICI; Russia Pot-ash. Pot-ash is an impure alkaline salt, produced from vegetable matters by burning. The strongest is brought from Russia, in dark coloured very hard masses, which nevertheless soon deliquiate in the air. This sort is prepared by burning wood with a close smothering heat, and making the ashes, with a ley drawn from the coarser part of them, into a paste, which

is afterwards stratified with some of the more inflammable kinds of wood, and burnt a second time : by this means the salt melts, and concretes with the earthy matter of the ashes, into hard cakes. A purer and whiter salt is brought to us from Germany, under the name of pearl-ashes : this is extracted from wood-ashes, by means of water, and afterwards reduced into a dry form by evaporation. These salts should never be employed for medicinal purposes, without due purification : this may be effected by solution in cold water, filtration, and exsiccation.

CUPRUM. The preparations of copper are violently emetic, and therefore very rarely exhibited internally. Some have ventured upon a solution of a grain or two of the metal in vegetable acids, and observe, that it acts almost as soon as received into the stomach, so as to be of good use for occasioning poisonous substances that have been swallowed, to be immediately thrown up again. Physicians in general seem to be agreed, that it has really a virulent quality : and too many examples are met with of fatal consequences ensuing upon eating food that had been dressed in copper vessels not well cleaned from the rust they had contracted by lying in the air. Great care ought to be had, that acid liquors, or even water, designed for internal use, be not suffered to stand long in vessels made of copper ; otherwise they will dissolve so much of the metal as will give them disagreeable qualities.

CEREVISIA, Ale. Under this article is intended all that belongs to potable malt liquors : and these may be considered under

the following divisions ; 1. Hopped and unhopped drinks. 2. Small or strong. 3. Pale or brown. And, 4. New and old.

1. The difference made by hops is best discovered from the nature of the hops themselves. These are known to be a subtile, active, grateful bitter. By this means the viscid parts of the malt are more divided and spiritualized, if we may use that term : and therefore not only more easy of digestion and secretion in the body ; but also while in the liquor, prevent it from running into such cohesions, as would make it ropy, vapid, and sour. But for want of this in unhopped drinks, that clammy sweetness which they retain after working, soon turns them acid and unfit for use ; which is sooner or later, in proportion to the strength they receive from the malt, and the comminution it has undergone by fermentation. It is much in the opinion of some, that ale is more diuretic than beer ; that is, unhopped liquor more than that which has hops in it. In some particular constitutions it may so happen ; because ale is more smooth, softening, and relaxing ; and therefore where urine is to be promoted by enlarging the passage, that is most likely to do it : and this is mostly the case of thin dry constitutions. But where the promotion of urine is to be made by attenuating and breaking the juices, and rendering them more fluid, it is certainly best answered by those drinks which are well hopped. As to the controversy whether hops tend to breed the stone, it is too long to enter into here ; and seems to have little foundation on the affirmative side : but thus far we may venture

ture to say, where one instance can be produced, of any probability for such an effect from this cause, there may many more be brought, which can admit of no doubt, where constitutions have been spoiled by ale on the contrary extreme. For that manifestly fouls the glands, stuffs the vessels with slime and viscosity, makes the body unwieldy and corpulent, and paves the way for cachexies, the jaundice, asthmas, and at last incurable dropfies. The urinary passages, which likewise it is imagined to clear, it will, by degrees fill with slough, and matter of as bad consequence as gravel.

2. The strength of these liquors, makes them of different efficacies, as to any medicinal regards. The stronger they are, the more viscid parts they carry into the blood: and although the spirituous parts make these imperceptible at first, yet when they are evaporated or gone off, which will be in a few hours, the other will be sensibly enough felt by pains in the head, nausea, sickness at the stomach, and lassitude, or listlessness to motion. This, those are much the best judges of, who have experienced the extremes of drinking these liquors, and wines: for a debauch of wine they find much sooner wear off: and they are more lively and brisk afterwards, than upon over-tipping of malt-liquors; whose viscid remains will be long before they can be shook away. These liquors therefore are much the more wholesome for being small: that is of such a strength as to carry some small degree of warmth into the stomach; but not so as to prevent their being proper diluters of our necessary food. People of ro-

bust constitutions, who labour very hard, may dispense with reasonable quantities of the strongest; especially as their food is frequently poor and slender enough, the deficiencies of which this supplies; and their continual exercise and strength of body, digests and breaks the viscidities of the drink into convenient nourishment: although in persons of another habit and way of living, they would only produce obstructions and ill humours.

3. Malt drinks are distinguished into pale or brown, from the malt they are brewed with. That which is slenderest dried, makes it less tinge the liquor in brewing; and therefore is called pale; whereas that which is higher dried, or roasted, as it were, in comparison of the other, makes it of a high colour; and a mixture of both, of an amber; which name likewise several of those liquors bear. The pale malt has certainly most of the grain in it; and is therefore most nourishing; but also, for that very reason, it requires a strong constitution, sufficient to digest it. Those who drink much of it are generally sleek and fat in the bloom of their age; but if they are not suddenly cut off by fevers, as they generally are, they fall very early into a distempered old age; and hardly support the burden of life, with a retinue of diseases. The brown makes a drink much less viscid, and fitter to pass the several strainers of the body; but what is very strong of it may be used in excess enough to bring on the inconveniencies of the former; though a single debauch with it much more easily wears off. How far it may be an useful hint to those that find their accounts

counts only in the profits of brewing, I cannot be a judge: but for the health of the consumer, I can venture to assure him, that the pale malt brewed with hard waters, such as those of springs and wells, is the best: because the mineral particles, with which they are impregnated, will help to prevent the cohesions of those drawn from the grain; and enable them to pass the proper secretions the better: as the viscid particles of the grain will likewise defend them from doing the mischief, which otherwise they might occasion. But softer waters, as river and rain waters, seem most suited to draw out the substance of high dried malts; which retain many igneous particles in their texture; and are therefore best lost in a smooth vehicle.

4. The age of these liquors is the last thing we are to consider, by which they become more or less wholesome. And this seems to do somewhat the same as hops: for those liquors which are longest kept, are certainly least viscid; age, by degrees, breaking the viscid parts, and rendering them smaller, makes them fitter for secretion. But this is always to be determined by their strength; because, in proportion to that, they will sooner or later come to their full perfection, and likewise to their decay. But when ale or beer is kept until its particles are broke and comminuted, as far as they are capable, then it is always the best; but beyond that it will continually be upon the decay, until the finer spirits quite make their escape, and the remainder becomes vapid and sour. By what therefore has been already said, it will appear that the

older drinks are the more wholesome; provided they be kept up to this standard, but not beyond it.

There is so much of use might be said upon this head (because these liquors have the greatest share in our way of living) that it would exceed the bounds we have set ourselves: we shall therefore only make this farther observation, that those whose fortunes permit them to intermix wine with their common drink, are not so subject to coughs, with other distempers of the breast, and dropsies; yet they are more afflicted with gravel, and arthritic pains: so that although the French may be merry (as what is not the subject of mirth to them?) with the English coughing at church; yet we can return it, that the English do not so often cry out under the torments of the stone and gout; unless it be the inactive drinkers of their wines.

We have not here given wine a distinct article; because it is a foreign liquor; and this work is professedly calculated for our own country: however, as it is so much in our common drink, amongst the higher order of people especially, it may not be amiss to observe, that the stronger wines seem much the more agreeable to English constitutions; but where they are too strong when neat, they may be diluted with water. These, by their spirituousness, wonderfully conduce to the digestion of the gross food of our country; especially the great quantities of flesh we eat; and are the more necessary, by reason we eat but little herbs. But the thinner wines, though they are most grateful to the stomach, and less dis-

disorder the head; yet they carry something with them into the blood, which they leave behind in the mucilaginous glands of the joints; where it occasions those racking pains of the gout, and sometimes, by degrees, takes away the use of the limbs, so far as to reduce persons to the state of cripples.

FERRUM, Iron. This metal holds a capital place in the *Materia Medica*, and has been prepared in more forms than perhaps any simple whatever. But though prepared by such various means, its medicinal qualities are the same in all different preparations of it, except in respect of the degree of their force. It has a styptic, astringent power, by which it acts as a corroborative, especially in the intestines; and by removing relaxations, and giving a due tension to the solids, it reforms the vitiated crasis of the blood, and removes the glandular obstructions. It is, on account of these effects, given as an emenagogue and antichloretic, and is esteemed the most powerful of any whatever. It is also sometimes given in hysteric and other cachectic cases, and very frequently in prostrations of the appetite, and weakness of the digestive faculty; particularly in those occasioned by hard drinking. It is sometimes joined to the bark in the cure of agues and intermittent fevers, and has been said to be so necessary thereto in some constitutions of the air, that the bark has been absolutely incapable of effecting a cure without it. It is sometimes given in the jaundice; but very improperly; for though it acts as a deobstruent, and may possibly excite greater efforts in

the liver to discharge the stagnant bile; yet its astringent effects; which are more immediately exerted in the *via prima*, and consequently on the mouth of the *ductus coledochus*, may contribute greatly to lock up the concreted bile, and consequently, instead of removing, assists the cause of the disease: and indeed it is the less advisable to give steel in these cases, as mercury has the same deobstruent power, without this astringent quality so repugnant to the intention.

ELATINE; *linaria segetum nummulariæ folio non villoso* Tourn. Fluellin or Female Speedwell. *Antirrhinum foliis hastatis alternis, caulibus procumbentibus.* Linn. the leaves. This is a low creeping plant, growing wild in corn-fields. The leaves have a very bitter, roughish taste. They were formerly accounted excellent vulneraries, and of great use for cleansing and healing old ulcers, and spreading cancerous sores; some have recommended them internally in leprous and scrophulous disorders; as also in hydropic cases. It gives name to one of the official honeys; but the plant itself is never used in the present practice, and this preparation of it is in no great esteem.

MEL, Honey. Mons. Lemery the younger has a dissertation of honey, in the Memoirs of the Academy for 1706. He says, that the spring-honey is the best; because the bees are then in their vigour. He esteems that which is made in Languedoc and Dauphiny; but that of Corbiere, three leagues distant from Narbonne, is preferable to all; and they therefore call it Honey of Narbonne. The excellency of this is thought

owing

owing to the abundance of rosemary that is to be met with thereabouts; but when he was in those parts, notwithstanding all the rosemary was destroyed by the severity of the preceding winter, yet he observed the honey to be as good as ever was known. In our country, Hampshire honey has the greatest name; but I cannot say, whether for its greater excellency, or the quantity which that country affords. That which is whitest and hardest is most preferred; but the browner and smother sort is best in medicine; because it is not so apt to candy, which deforms and spoils it: besides, Lemery the Elder, in his chemistry says it is more spirituous, which very well agrees with its keeping more fluid. And that certainly must most abound with saline parts, which shoots soonest into what is commonly called Candy. Schroder's authority also justifies the choice of Mons. Lemery; for he prefers the *Mel flavum*; and next to that the *Mel album*. Some naturalists and physical writers speak of honey being found in many places where there are no bees: and it is by them, therefore, called *Ros*, and *Cibus Cælestis*. Pliny, Book 21. Ch. 14. mentions a mountain in Crete, where there was found great plenty of honey; but where never were seen any bees. And Galen affirms, Lib. 11. *de simp. Medic. Facult.* that he found honey perfectly formed upon divers trees and plants. His words are to this purpose: I remember I have sometimes in the summer observed honey upon the leaves of trees and plants; insomuch that the hinds have with joy cried out, Jupiter rains honey!

The medicinal virtues of this

are many and great; insomuch that there is no author, from the most ancient times, but makes mention of them; it is very penetrating and deterging; and is therefore good in all obstructions, especially from viscid and tough humours. In infarctions and stuffing of the breast, it is of great efficacy; and wonderfully promotes expectoration. In short there is no disorder from phlegm, or any thing which is the produce of a cold constitution, which it is not of service in. But in thin and hot habits it is not good. It was anciently used as sugar is now; and great pity it is, that it is not at present more used. It does great service to such as are troubled in a morning with thick tough phlegm; with which they cannot be easy, until it is hawked up; though it gives a great deal of difficulty and straining to do it. For this purpose it is very conveniently eat over-night upon a toast; or dissolved in any warm liquor. This has been much used in chirurgery to cleanse foul ulcers; either by immediate application, or washing them in liquors in which it had been dissolved.

FULIGO LIGNI, Wood Soot. This concrete is of a shining black colour, a disagreeable smell, and an acrid bitter nauseous taste. Its chief use is in hysteric cases, in which it is sometimes exhibited in conjunction with the fetid gums: it gives name to a tincture of this kind in the shops. Its virtues are extracted both by watery and spirituous liquors, each of which, if the soot is of a good kind, dissolve about one sixth of it. Soot differs greatly in quality according to the wood it was produced from; the more resinous the wood, the

more the foot abounds with oily matter.

LIGNUM TINCTILE CAMPECHENSE; [L. F.] *lignum Brasiliæ simile, cæruleo tingens* J. B. Campeachy or Logwood; *Hæmatoxylon Campechianum*. Linn. a wood brought from Campeachy in the bay of Honduras. This is usually met with in large logs, very compact and hard, of a red colour, and an astringent sweet taste. It has been for a long time used by the dyers; but not till very lately as a medicine; a decoction of it, and the extract, are in use in our hospitals, and said to have proved very serviceable in diarrhœas.

OVA, Eggs. The medicinal uses of these have been already taken notice of under the preceding Section in Class 1. and Class 3. Here therefore we have to do with them only as a part of our food; in which respect all know them to be of good nourishment, and warm; but subject not to pass well through the stomach with some people; which may arise from their softening and relaxing the membranes; and also their tenacity and difficulty of comminution; especially if they are made hard in the dressing. The best way of remedying this inconvenience is with vinegar, or pepper, or both, as the usual custom is; because such things astringe the coats of the stomach, and make them perform their attritions more forcibly, whereby digestion is sooner performed.

PALMA OLEOSA, the Palm Oil Tree. *Palma Spinosa major et minor*. Slo. Cat. This is a kind of Palm-tree, growing upon the coasts of Guinea; and bearing a flat fruit that by expression affords the palm oil, which, when fresh,

is of a beautiful orange-colour, of a pleasant sweet scent, little taste, and of the consistence of butter. The natives use it instead of butter; but we apply it only externally, as a strengthener and emollient, and in all kinds of weakness of the limbs; in pains, cramps, bruises, strains, and swellings, &c. See Cacao.

PANIS, Bread. Most of what concerns this article may be found under Sect. 4. Class 2. concerning barley, and all kinds of bread corn. Only here we shall just observe, that the bread which is most baked, is easiest of digestion, because what the heat does in baking, forwards that comminution of the more viscid parts, which is to be finished in the stomach. The salt and yeast, or what is added to it as leaven, to give it a gentle ferment, very much assists to the same end; the lighter therefore it is the better. The coarse bread which the country people feed on, makes a good change of diet with some citizens, who live upon meats too nourishing; and, for want of sufficient exercise, grow corpulent; because it is deterfive, and will gently purge them at first.

SACCHARUM, Sugar. *Saccharum officinarum*. Linn. The plant which produces this is called *Arundo Saccharifera*, or *Calamus saccharinus*, the Sugar-Reed or Cane. Its medicinal effects vary something, according to its different degrees of fineness; the brownest is most sweet, because there is most of an oily nature in its composition: which makes it more adhere to, and abide longer upon the palate. It is also most opening, and therefore best to use in purgative syrups, as also in glysters. The finer has more of a binding

binding quality; but the finest of all has a deterfive one; and is therefore useful where phlegm abounds; for it cuts and attenuates viscid humours, and promotes expectoration. The common sugars have so much in them that is gross and viscid, that if much used they foul the glands; particularly those of the skin; and occasion many scorbutic symptoms. Many authors too have a notion of their being hurtful to hysterical and hypochondriacal people; because of their fermentative nature: and for the same reason also forbid them in fevers. The Arabians first brought them so much into medicine; and contrived a great many syrups, which were to have their consistence from them. Sugar-candy is sugar crystallized. The crystals are prepared by boiling down solutions of sugar to a certain pitch, and then removing them into a hot room, with sticks set across the vessel for the sugar to shoot upon: these crystals prove of a white or brown colour, according as the sugar was pure or impure.

SALOP, Is an oblong and somewhat transparent root, of a yellowish white colour; of little smell, and a slimy taste. It is brought from Turkey: and is a species of the Orchis. It is made into the consistence of thin jelly, and drank as such; it is a restorative and strengthener.

SAL AMMONIACUM, Sal ammoniac. This salt is brought from Alexandria, where it is made by subliming the soot of the ovens in which camels dung is employed for fuel. It is composed of a volatile alkali and the acid of common salt (the camels having had this salt given them with their food.)

The best is almost transparent, colourless, and free from any visible impurities. Pure sal ammoniac is perfectly neutral, attenuates viscid humours, promotes a diaphoresis, or the urinary discharge, according to the circumstances in the constitution, or as the patient is managed during the operation. Externally it is antiseptic, and is often employed to advantage in gargarisms, for inflammations of the tonsils, and for dissolving thick viscid mucus.

SAL MARINUS, Common, or Sea-salt. This salt is of little use in medicine in its unprepared state; though, doubtless, in default of other neutral salts, it might be used with success, having both the purgative and dissolvent power, common to the rest; but its quality of exciting intolerable thirst, when taken freely, gives the others a right to preference. It is composed of an acid spirit, and a natural fixt alkaline salt, which is most probably the Natron of the ancients.

The first of these elements, separated from it, and called spirit of salt, is employed in many important preparations, and the latter makes the basis of the valuable *Sal mirabile*, or *Glauberi*.

SAL CATHARTICUS AMARUS, the bitter purging salt; extracted from the bitter liquor remaining after the crystallization of common salt from sea water. It was first prepared as a cheap substitute to the salt of Epsom, and other purging mineral waters, from which it does not considerably differ, either in sensible qualities, or medical effects. We usually meet with it in minute crystals, or a snowy appearance: dissolved in water, crystallized afresh, it concretes, if properly managed, into

larger ones, of a rectangular prismatic figure, resembling those of the artificial cathartic salt of Glauber, to which they are sometimes substituted in the shops.

The sal catharticus is a mild and gentle purgative, operating with sufficient efficacy, and in general with ease and safety, rarely occasioning any gripes, sickness, or the other inconveniences which purgatives of the resinous kind do.

SERUM, Whey. This is accounted a good cooler and sweetener of the blood. By taking away the curd from the milk, the most viscid and grumous part is gone; and the whey, which remains, is thereby left thinner and finer to pass the several strainers of the body: and for this reason, where it does not too much chill the stomach, it is very good to drink in large quantities, to rinse the viscera and particularly the kidneys, by which it is very apt to pass off. The custom of infusing fumitory in it, to drink for many mornings together fasting, is of long standing; and is greatly approved of by many ancient physicians. Where it is not too nauseous (for the fumitory is very bitter) it cannot but be an extraordinary good medicine for moderately detesting, and strengthening the inwards.

SPIGELIA ANTHELMIS. Linn. Brazilian Worm-Grass. It is also called *Anthelmethia*. It is native in South America, and is cultivated in most parts of Jamaica, &c. it rises to 7, 10, or sometimes 13 inches in height; the main stem sends out from two to six lateral and opposite branches, as it rises, which, like the parent stalk, are furnished with four oval pointed and almost equal leaves, disposed in the form of a cross at

the top; from the centre of these it throws out one, two, or more spikes, which bear all their flowers and seed vessels on one side of them, and are commonly from one half to two or three inches in length.

This medicine is principally noticed for its efficacy in destroying worms. It procures sleep, almost as certainly and in an equal degree with opium; but the eyes seem distended, and appear bright and sparkling, as they generally do before the eruption of the small-pox, or the measles: this effect is perceived after the sleeping fit is over. In a short time after the first dose, the pulse becomes regular and begins to rise, the fever abates, the symptoms in general vanish, and the worms are discharged by the use of the subsequent purgatives, if not before. A repetition of the dose is rarely required more than once. Its effects on the eyes of children is sometimes considerable, which requires some caution in administering it; though it is very rare that any remarkable inconvenience follows its use.

Of the whole plant, two moderate handfuls are boiled in a pint and half of water to a pint, half of which is given at bed-time, to a robust man, and the same quantity repeated every twenty-four hours, to a third time: or four ounces of the decoction may be given to a full grown person, and two ounces every six hours after; and less to the weaker and younger in proportion. If its anodyne effects do not disappear in six hours, wait their departure before the next dose is given; after forty-eight hours the double dose may be given, &c. as before, as long as required.

SPÍRITUS VINI, Brandy.

What is strictly a spirit of wine, is only a vegetable highly exalted by volatile salts; as was before hinted in the first part, concerning principles; but here we mean that which is in common use in potable liquors; which is the former; with a large share of phlegm: for what comes up to that standard which the distillers call proof, contains near seven parts of phlegm to nine of spirit. Upon the exactest trial I have known made, thirty-two ounces of brandy of common proof, will raise over nineteen ounces, or very near, of spirit, which would all burn away, but no more; the rest being mere phlegm. The medicinal effects of this may be found in the explanation of the first Class of the first Section of this Part.

STANNUM, Tin. This metal powdered is an excellent *anthelmintic*. Vide Med. Essays

TARTARUM, Tartar. This is what is found sticking to wine-casks, like a hard stone; and is either white or red, according to the colour of the wine from whence it comes. The white is preferable, as containing less dross or earthy parts. The best comes from Germany; and is the tartar of the Rhenish wines. It is not used but after preparation. We shall mention its virtues in their proper place.

VINUM, Wine. So far as is necessary to take notice of this may be already found under CEREVISIA, in this Section.

Among the great variety of wines, five of them only are used in the shops, viz.

1. *Vin. Alb. Hispan.* Mountain Wine.

2. *Vin. Alb. Gallicum*, French White Wine.

3. *Vin. Canarinum*, Canary, or Sack.

4. *Vin. Rhenanum*, Rhenish.

5. *Vin. Rubrum*, Red Port.

These are used as menstrua and vehicles of other medicines.

VITRIOLUM, Vitriol, is a salt composed of that species of acid which thence takes its name, and some metal, according to the kind of which three species of vitriol are formed: they are distinguished by the names of *Vitriolum cæruleum seu Romanum*, blue or Roman vitriol, or celestial stone: *Vitriolum viride*, green vitriol, or copperas; and *Vitriolum album*, white copperas: the species called formerly *Hungaricum* is not now distinguished it being disputed whether it was the green or blue.

The Roman vitriol consists of the proper acid and copper; it is used externally as a caustic; and being powdered is almost an universal cure for the tooth-ach, if thus applied; dip the end of a little tent or roll of cotton wool in the powder, and thrust the same into the tooth, and suffer it to continue there for six or eight minutes, or longer, if the case be obstinate; but take the greatest care that none of it be so diffused in the mouth as to touch any of the other teeth, and that all the saliva, whose secretion will be plentifully excited, be spit out and not swallowed: for this salt has a most violent emetic quality, when taken in the least quantity. It is of little use in any preparations, except in some processes for making the *ens Veneris*; where, from the supposed authority of Mr. Boyle, it is used; but of this see more particularly

cularly in the note on that preparation.

The green vitriol, or copperas, is composed of the acid and iron : it is seldom used crude under that name ; but it is in every respect, excepting purity, the same with what is called *Sal Martis*, and prepared by processes proper to Pharmacy. As it affords, when analysed, the acid which bears its name, and a calx of iron, it is of course employed in many processes where such ingredients are wanted, as likewise for the production of these two important substances of which it is composed, the acid, commonly called oil of vitriol, and the colcothar, or calx of iron.

White vitriol consists of the acid and zinc ; it is little used in medicine under its own name, but having suffered a needless purification, it is called *Gilla vitrioli*, and by the College of London now *Sal vitrioli*. Its use is chiefly in

collyriums ; but it has been sometimes given as a vomit, where extreme violent ones have been required.

SCINCUS, the Skink, a kind of small lizard, brought dry from Egypt. It stands recommended as a great restorative ; whatever virtues it may have as used fresh by the Egyptians, it has none as it comes to us, and serves to uselessly increase the articles of the mithridate.

ZIBETHUM, Civet. This is an unctuous substance of the consistence of honey, taken out of a peculiar bag both of the male and female civet-cat. It is a high perfume, and usually mixed with musk and ambergrise. It is sometimes used alone to the ears against deafness ; a little of it being lodged on a bit of cotton. It is also reckoned anodyne ; and sometimes mixed with unguents, &c. of that intention.

S E C T. XIV.

Of Waters.

WATER is so useful and necessary a part of all that we are concerned in, with regard either to diet or medicine, that we cannot be too inquisitive into its nature and difference ; nor too solicitous and nice in our choice of it. It is the main diluter of our food ; and is the better for that purpose, the freer it is from the mixture of any foreign particles. By this element, or division of

matter, we understand nothing but a simple unmixed fluid ; and water, as such, is not manageable, by Pharmacy, to alter it for the better. But as it is not to be met with unmixed with some heterogeneous particles, we shall be better instructed how to use and chuse it for the purposes of life, by inquiring how it is altered and affected by the mixture it receives of such foreign matters, in the several

several conditions we meet with it.

In this search we find the best helps from some short hints (and such only we have room for) of Dr. Mead in his Essay on Poisons.

Water is of so constant a service, not only for our drinks, but also in preparing our flesh and bread, that it may justly be said to be the vehicle of all our nourishment: so that whenever this happens to put on other properties than are necessary to fit it for this purpose, it is no wonder if in its passage through the body these make suitable impressions there.

For this reason, the choice of water for drink, amongst the ancients, was made by weight; the lightest being preferred, as most free from all heterogeneous bodies.

A great neglect, in this respect, the doctor charges upon the inhabitants of this city; and that is, in chusing stagnating impure well-water for the brewing of beer, and making other drinks. Such a fluid indeed has a greater force and aptness to extract the matter out of the malt, than is to be had in the more innocent and soft liquor of rivers: but for this very reason it ought not, unless upon mere necessity, to be made use of; this quality being owing to the mineral particles and aluminous salts with which it is impregnated.

A late author, Dr. J. H. in a book called *Scelara Aquarium*, or A Supplement to Mr. Graunt on the Bills of Mortality, by searching into the first accounts of the distemper we call the Scurvy, described by Pliny and Strabo, under the promiscuous names of Stomachace and Scelotyrbæ; and examin-

ing the authentic histories of it in later years, made by the most observing physicians in those countries where it was unhappily revived, as Olaus Magnus, Balduinus, Ronseus, J. Wierius, Solomon Albertus, &c. finds that the origin of it was in all times and places charged upon the use of unwholesome stagnating waters. Then by comparing together the clayey strata of the earth about the cities of London, Paris, and Amsterdam, he shews, that where the water is worst, there this malady is most rife. So that he has put it out of all doubt, that most of the perplexed and complicated symptoms, which are ranged under this one general name, if they do not entirely owe their birth to the malignity of this element, do however acknowledge it to be their main and principal cause.

And indeed Hippocrates himself, as he has very plainly deciphered this disease by the title of *σπληνὲς μεγάλοι*, or great milts, so he does very particularly in another treatise take notice, that drinking of stagnating well-waters must necessarily induce an ill disposition both of the milt and belly. Sanctorius teaches us, in his *Medicina Statica*, Sect. 2. Aphor. 2. that heavy water converts the matter of transpiration into an ichor: which being retained, induces a cachexy.

What mischiefs will ensue hereupon, every one sees; not only pains in the limbs, livid spots in the surface of the body, ulcers, &c. from the acrimony of the undischarged moisture; but many also of those perplexing symptoms, which go by the name of hysterical and hypochondriacal, may take their rise from the same

source: for the before cited *Sanc-torius* has remarked, in Sect. 3. Aphor. 13. that the *flatus* or wind, so inseparable from those cases, is no other than the fluid of perspiration crude and unfinished. If the inconveniences are oftentimes not felt, at least not till towards a declining age, in strong and active habits of body; yet I am from very good experience assured, that they deserve consideration in weaker constitutions and a sedentary life; especially of the more tender sex: a worthy person, who had formerly an afflicted life, from the violent returns of colic pains, till she was, with happy success, advised by the noble Van Helmont not to drink, as she then did, beer brewed with well-water; and her health is even now so far owing to this management, that an error in it is unavoidably followed with the wonted complaints.

For these reasons Pliny tells us, that those waters are condemned, in the first place, which, when boiled, do encrust the sides of the vessels: and that our well-waters do this, no body who looks into the tea-kettles of our gentlewomen can be ignorant. And indeed in ancient times, when physic was more a science, which is now more a trade; as that part of it which relates to diet was more carefully studied than it is now-a-days; so this point particularly, of which we are treating, was of so great moment, that Hippocrates, who wrote the best book on the subject that ever was published, has in a great measure accounted not only for the disease, but even for the temper and disposition of the people of several countries, from this difference of

the waters with which nature has supplied them.

AQUA FONTANA, Spring-water. By the course of this we are liable to a mixture, in one sort or other, of all the metalline or mineral particles which lie concealed in the earth. For the waters of all springs (that is all waters which are circulated or strained through the earth, and which we call springs, when they break out upon the surface) wash off and carry along with them some particles of the soil they travel thro'; so that they become salubrious or mischievous, according to the nature of the mineral matter, which they have taken up, and joined with, in their course. So far as this answers any medicinal purposes, and makes the water in any respect purgative, will come under inquiry in the article of ACIDULÆ. Here, therefore, we have only occasion to be satisfied what are best for the common occasions of life, as they must necessarily make a part of our diet; and these are the lightest, as the preceding reasonings demonstrate, and such as are freest from mineral mixtures,

That spring-waters are thus loaded in their current, cannot be doubted by those who have ever experienced the taste and efficacy of our ordinary medicinal springs; and though our own country furnishes us not with any such instances, unquestionable authority informs us of some springs which bring along with them poisonous and deadly companions: which must be corrosive corpuscles mixed with their water, that cannot fail (when forsaken, in the canals of the body, by their vehicle) to do

do the same mischief as they would if taken by themselves undiluted; only with this difference, that they may, in this form, be carried sometimes farther into the animal frame, and so discover their malignity in some of the inmost recesses. Thus the *Fons Ruber* in Ethiopia, mentioned by Pliny, about which abundance of native minium or cinnabar was found, shewing its ill effects chiefly on the brain: which gave occasion for Ovid to say of it,

—*Si quis faucibus hauset,
Aut furit, aut patitur mirum gra-
vitate soporem.*

But there is no need of enlarging farther on this head; since any mineral poison may impart its deadly quality to perfluent streams: and accordingly there are instances of arsenical, mercurial, and other fountains, of which the histories may be seen in the collections of *Baccius de Thermis*, Lib. 6. and a very remarkable one in the Philosophical Transactions, N^o 8.

We are taught many curious ways of trying what are the principal mixtures in these waters; which must be of great use to such as travel in unfrequented countries; and where necessity often forces them to unexperienced springs: but that would be too long for as here; we shall therefore only drop this general rule, that those waters are best for use which are lightest: and this may be determined with the utmost exactness, by weighing other convenient bodies in them; which we are taught by the common hydrostatical scales, now any where to be had in the shops. The common experiment of trying them with soap is also useful; for the

more remote they are from lathering with that, the more unfit they are for use. Those springs which arise from a chalky earth, are generally accounted best; which may be either for their not giving to the perfluent waters any thing unwholesome; or their absorbing many mineral particles from them in their percolation.

There may circumstances happen, where spring-waters shall be found of good service drank alone. In some stomachs relaxed from intemperance, these drank in a morning, not only help to wash off a great deal of slimy filth, the remains of a debauch, but also to astringe the fibres, and draw up the membranes to a due tenfity. And the more loaded such waters are with some mineral particles, especially of the alluminous or nitrous kind, the more abstersive and more restringing will they be, and the better answer those intentions.

——FLUVIALIS, River water. This likewise has its various qualities from the different soils it travels through, though not so much as that of springs. River water may be reckoned a composition of spring and rain waters together: near the head therefore of any considerable spring, that may partake much of the ore or mineral, which the spring washes along with it; but at a greater distance it may be affected and charged with its proper soil. For in its progress the mineral particles will fall, or be entangled and lost in the ouzy and clayey mixtures they pass through. As the spring waters take up, in their meanders, many heavy mineral particles; so these either wash up from ouzey bottoms, or
have

have so much filth drained into them especially near large towns, that they abound with a foreign matter of a very different nature; and which sometimes will ferment, as is manifest in that of the Thames; though some travellers affirm no other waters do the same. Of this kind therefore those which come into use with such mixtures, may be more or less convenient in particular cases and constitutions, according to the nature of what they have got so mixed. But, in general, these waters are much softer than such as travel under-ground; and therefore are fitter for use where hard waters are condemned.

PLUVIALIS, rain-water. This is reckoned the most simple of all: and to come nearest a homogeneous fluid; and therefore, as a diluter, it is to be preferred. Quercetan, and many others, lay stress upon the circumstances of these falling, whether suddenly or more slow, and from what quarter of the heavens the clouds bring them: but this seems to be as little to the purpose, as under the former articles what parts springs or rivers run from, as to the divisions of the globe, and their position to the sun. Some are of opinion, that rain-water brings somewhat of a nitrous volatile salt along with it; and think, by that means, it gives fertility to the earth: but if it does so, they must be too fine to injure any of the secretory strainers, by obstructing them; and too active or susceptible of motion to draw into contact, and form hurtful concretions; and indeed, in many instances, such a mixture might be of service. Therefore whatsoever rain-water brings along with it, it

is notwithstanding certainly the most simple and elementary of any; and the properest diluter or vehicle that we can be supplied with.

———**PUTEALIS**, Well-water. This is subject to all the inconveniencies of spring-water; with this additional mischief, that stagnating so long in the well, it may there take up, from the bed it lies upon, such particles, farther than what is brought along with it thither, as to render it still more unwholesome: whereas that which breaks out in springs, is preserved higher than such heavy matter is usually lodged. Of all waters, therefore, whatsoever, well-waters are the most to be distrusted; and of those, such chiefly as come out of the deepest wells.

———**PALUSTRIS**, Pond-water. This may include all stagnant waters, which are generally from rain only; for here we do not suppose any springs concerned. To this therefore no more can be said, than that where it is upon a clean bottom, it comes so near to rain water, as not to be distinguished from it: but generally even the motions of the wind, or some other causes, as the treading of cattle, so disturb these, as to force up with them such filth, as there corrupts and ferments; which makes such waters the most uncleanly and disagreeable of any.

———**NIVEALIS**, Snow-water. This undoubtedly brings a considerable portion of nitre along with it: so as to make it deterfivè and diuretic. But it comes so little either into our diet or medicine, that we need not be very solicitous about it. As for what washes into the rivers, and accidentally comes

comes to us that way, after the fall of great snows, it is lost so much, that it can hardly be imagined to communicate any efficacy to the share we have of it.

—MARINA, Sea-water. The saltness of this is sufficiently known; and how upon that account it is both disagreeable and unwholesome in our food: and therefore never experienced but in extremities.

ACIDULÆ, Medicinal Waters.

Though these waters have long gone by this name, it is but very lately that it was known wherein their acid consisted. Dr. Priestley was one of the first who discovered and demonstrated that the gas (as it is called by Helmont, and the fixed air, by others,) is the acid of these productions. See Dr. Priestley's Directions for impregnating Water with Fixed Air, &c. We shall consider these waters under these two divisions only, of Purging and Chalybeate.

AQUÆ PURGANTES, Purging-waters. There is no county scarce in England, but discovers some of these springs. Those about London are chiefly Epsom, Dulwich, Acton, North-Hall, and Kilburn; though there are many others, and perhaps as good, but of inferior note. They all agree in this, that they abound with a salt of a neutral nature; which they take up and wash along with them in their passages. This is not only manifest to the taste; but upon evaporation they leave it in considerable quantities behind. It is not of moment enough to distinguish the several kinds of these salts, which some persons of great leisure have done. By this saline mixture, these wa-

ters greatly deterge the stomach and bowels, and carry along with them, by stool, a great deal which it may be beneficial to have well discharged. They do often therefore good service where the *Primæ Viæ* want cleansing; and this is to be done with a few repetitions: but if persons go no longer (as it is too customary, some thinking the more they purge, the farther they are from being sick) the salts will too much get into the blood; which by their grossness will gradually be collected in quantity enough in the capillaries and glands, to obstruct them, and occasion fevers *pestimi moris*. For all those fevers which come after long purging, especially after the waters, are of the worst kind, and often fatal. Some soften these waters by boiling up milk enough with them to make a kind of whey, which is agreeable to some tender persons, who might be too much chilled with the water raw. These sometimes do great service in such colics as invert the peristaltic motion of the intestines; and, as people commonly express it, twist the guts; where the patient can walk about, or be kept conveniently in an erect posture; for their weight pressing downwards, and their moisture softening and relaxing the fibres, concur to promote their passages quite through; wherein consists the cure in such cases. But it is here supposed that they are boiled with some milk; a quart of water with half a pint is the usual quantity: for that much contributes to its relaxing quality.

Dr. Grew, who was a most worthy physician, and an industrious experimenter himself, made trial how much salt these waters would

would leave upon evaporation: and found that a gallon left about two drachms, or near, according to my best remembrance, for I have not his writings by me. He likewise found the salt thus procured answered the virtues of the water in its cathartic qualities. Of this an account was given before the Royal Society, in a Latin Dissertation, or Lecture. But the avaricious craft of a certain furnace-philosopher could not let this useful discovery in natural knowledge rest under the improvement and proper use of persons of integrity; but he pretended to make a great quantity for sale; and, to recommend his salt, translated the Doctor's Lecture upon it into English, in order to give away in his shops as a quack-bill. The doctor not suspecting so vile a fraud, interrupted him not in that; but was forced to translate his own Latin, to rescue it from the blunders of the chemist. And thus went off somewhat for the true salt of the purging waters; until competitors in such fraudulent practices forced the price to be lowered; so that what was first sold at one shilling an ounce, and could not honestly be made under, is now come to be sold for not much above thirty shillings per hundred weight, which does not much exceed three pence per pound. This salt is prepared from that bitter liquor called bittern, which runs from common salt in the making, and is in every respect as good and useful as the true Epsom salt.

This salt is of service in cathartic infusions; for a drachm in an infusion of senna, rhubarb, and such like things, helps to extract the purgative virtue the better, and assist their operation.

Of the waters above named the strength is much the same; if there be any difference, those of Dulwich seem to be the quickest in operation. They are all of them best at the well-head, tho' they are used in town some days after they are taken up; for by standing they let fall some mineral particles, which seem necessary in their operation.

AQUÆ FERRUGINEÆ, Steel-waters. These are likewise in many parts of England. Those of most note are of Tunbridge, Scarborough, Hampstead, and Islington. The small difference of ore, or mineral mixtures, are not here also worth our while to take up room about: it sufficeth, that it is out of all doubt that the quality, to which they owe their use in medicine, is received from iron; for of this their taste, and what they let fall from standing, as well as the rust they sur the borders of their springs with, besides the known experiment of galls, put it out of all dispute. In considering therefore the medicinal efficacy of these waters, we are to regard them as an iron dissolved in an aqueous menstruum. And because that mineral, with the many preparations made of it, will presently come in our way to examine in this light, we shall say the less of these here; only observing what is necessary of a chalybeate medicine in this form.

There is perhaps not any one alterative of greater efficacy than those from this mineral; and yet with how little care or due consideration do many run into a course of the waters impregnated with them? for they are not of the number of such things which may be used in wantonness or diversion.

sion. It may be depended on, whosoever meddles with these, is much the better or worse for them afterwards. Whosoever takes iron in medicine, if it passes the first digestions, and mixes with the blood, will find it to warm him, and make his veins full and turbid. In plethoric habits, therefore, these waters are to be forbid: and how many fevers are observed after drinking them (which are manifest from that extreme,) as also vertigoes, epilepsies, and apoplexies? For raising the blood too high, crouds the vessels, and makes those in the brain press upon the conveyances of the nervous fluid; whereby they put the whole system into disorder, and occasion the foregoing mischief. In most young persons proper evacuations ought to be made while they are drinking; and especially if, as with many, they render them more costive.

To such as by long illness, or any other cause have their blood rendered thin, poor, cold, and watery, these waters will give wonderful assistance. In a chlorosis, which is commonly called the green-sickness, and in all obstructions of the viscera, especially of the kidneys and uterus, they do great service. In a relaxed tone of the stomach likewise, from crampulas, or any other cause, they greatly astringe the fibres, and bring them to a due tenstity; although at first their roughness occasions them to be thrown up again by vomit.

BALNEA, Baths.

Of these we have two kinds; the hot and cold.

BALNEA CALIDA, or THERMAE, Hot-baths. The chief we

have of this kind in our country, is that famous one near Wells in Somersetshire; another there is of inferior note at Buxton. We shall leave it to naturalists and philosophers to account for the production of these waters; and content ourselves with observing, that they greatly abound with a volatile sulphureous acid; which appears beyond all doubt, from its turning silver or copper blackish. And some who have been so curious as to boil it in oil, affirm it to have made a good balsam of sulphur.

From the principal mineral ingredients then, with which this water is impregnated, we may pronounce it a soft healing sub-astringent balsamic. We add sub-astringent, because we never meet with sulphur, even in the sublimed flowers, which had not some portion of salt in its composition; which when boiled in oil, as in making the *Balsamum Sulphuris*, shoots like needles, or the branches of *Sal Ammoniac*: so that it is very improbable these waters should take up any sulphur in their subterraneous current, without also bringing some of that saline part along with them; which it is never found without above ground; and especially when we consider, how much more it is in the nature of water to attract and join with such particles, than those which are purely sulphureous.

From these premises, we are very naturally directed to the cases wherein these waters, and bathing in them, must be of service. And first of all, in languors, debility, and any waste of the constitution, that is not out of a possibility of repair, they are like a fomentation, which both supplies and
strengthens

strengthens the parts all over the body at once; and by gentle shaking and undulating the fibres, helps forward those animal motions, which are ready to be at a stand. In old pains and aches, which have been the remains of nervous distempers, and where some particular part continues contracted, or has any humours fixed upon it, which it cannot dislodge; these waters pumped upon such parts, hot from the spring, do more towards a cure than all the compositions of Pharmacy. General bathing in these springs cannot but wonderfully open that almost infinite number of secretory orifices upon the surface of the skin, and clear the cutaneous ducts of matter which is apt to stick in them: by the aperture of which spiracula, the fluids of the whole body have more room to flow, and proper vents given them to reek out a great deal, which it is of service to the œconomy to get rid of. Thus are rheumatisms of many kinds, arthritic pains, contracted and paralytic limbs, with all the deplorable attendance of aches and lameness, cured by what is more a pleasure and enjoyment than a medicine.

These sulphur fountains, likewise, inwardly used, to amaze-ment warm and strengthen a decayed stomach; especially if relaxed and almost worn out with luxury and debauch. The most grievous nauseas and vomitings, from these causes, have been removed by them. For they both soften again with proper moisture the fibres which have been rendered incapable to vibrate by the use of hot burning spirituous liquors; and, at the same time, draw them into a greater tenacity; as a cord,

which relaxes with over-drying, fills up and straitens upon the contact and attraction of a convenient moisture. The small share of a fine salt, which likewise attends; and is as it were wrapt up in the particles of sulphur, cannot but contribute somewhat in restoring the tone of such decayed parts. But besides the benefit these particularly do to the stomach, they also carry along with them, into the most remote recesses, a balsamic of nature's own preparation; whereby such decays, as we have been speaking of, in the stomach; or in any of the viscera, from abscesses, ulcerations, or any the like causes, are with great success relieved. And particularly, if they be of the kidneys or urinary passages; because they wash thro' them in greater plenty, than where they come only by the ordinary course of circulation. Indeed the excellencies of these springs deserve a volume to do them justice; but we have room here only for short hints. Such as desire more, may consult Guidott Pierce's Bath Memoirs; and Oliver on Bath Waters.

BALNEA FRIGIDA, Cold-Baths. These have been long banished out of medicine; and hardly heard of during the usurpation of monkish philosophy and enthusiastic chemistry. The ancients had them in the greatest esteem; and by good luck some improvements of reasoning in physic, from geometry and mechanics, have brought them into tolerable good countenance again; and the present age can furnish us with abundance of noble cures performed by cold-bathing, which were long, in vain, attempted by the most efficacious medicines. What a de-
lightful

lightful sight it is to a person of humanity and tenderness towards his fellow-creatures to see the number of crutches, and other artificial aids of a cripple, hang up, as certificates of the benefit so many poor wretches have had from the bathing only in cold water, in the apartments where these springs are maintained !

This branch of the means of cure comes under demonstration, both as to the manner and quantity of its efficacy, as much as any thing in the whole compass of physic. The gravitation of fluids, the pressure of the atmosphere, and its differences, and that of water with its different weights upon any given surface, come into calculation with as much ease and plainness, as any thing that can be stated in common arithmetic. And the alterations which the animal fluids are subjected to, under such different weights, is as easy to apprehend. For the theory of this affair, the reader may study Dr. Mead, *de Imperio Solis ac Lunæ*; Wainwright of the Non-naturals; and a late edition of Sanctorius's *Medicina Statica*, with explanations.

There are hardly any chronic diseases but the cold-bath may be made use of to advantage, if the constitution has not somewhat particular that forbids its use; which are chiefly corpulency and unsound viscera. In very fat persons, the fibres are so stuffed round, and as it were bolstered up, that they have not room to vibrate and contract with the sudden squeeze of the bath; instead therefore of enforcing their springs, and shaking off any unnecessary incumbrances, they will only be strained

to no purpose, and consequently weakened; for wheresoever an effort is made to remove any thing by an elastic body, if the first exertion fails, every impetus afterwards languishes, and the spring is spoiled. And in unsound viscera, or where any part is much weaker than the rest, such an additional force, as the sudden contraction the bath gives to the solids, which press the fluids on that part, very much to its damage; which may occasion either the bursting of the vessels, or promote the discharge of some ill humours upon that part which otherwise might drain off elsewhere.

But where nothing of this nature forbids the use of the cold bath, whatsoever is to be effected by bracing the solids, invigorating the vibrations, and accelerating the blood's motion, is with certainty to be had from thence. In diseases, therefore, from a sily blood, and a lentor in the animal juices, if the elasticity of the vessels is not worn out with age or debauches, relief will be had from the cold-bath; as rheumatisms of the most obstinate kind, hypochondriacal affections, and debility, from too tender, indulgent, and inactive ways of life. In all inconveniences, likewise, proceeding from a bad transpiration, or when humours are thrown upon the surface, which cannot get through, but ulcerate, blotch, and deform the skin, this remedy will be of service. For, upon immersion, the whole nervous system is so shook, that the very capillaries feel the influence, and the minutest passages are forced open by an increased velocity of the circulating fluids; whereby the skin will

will be cleared, and, instead of entertaining gross acrimonious humours, transmit only the imperceptible matter of perspiration. But in a work designed to improve and recommend medicine, it may not be well perhaps to launch out

too far in commendation of cold water; we shall therefore refer, for more information upon this head, to the learned letters of Sir John Floyer upon the Cold Bath; and what in latter editions is annexed thereto by Dr. Baynard.

C H A P. II.

Distribution of Medicinal Simples, according to their sensible Qualities.

SECT.

- I. ACIDS.
- II. INSIPID EARTHY Substances, capable of ABSORBING ACIDS.
- III. INDISSOLUBLE EARTHS.
- IV. GLUTINOUS vegetable and animal Substances.
- V. UNCTUOUS vegetable and animal Substances.
- VI. ASTRINGENTS.
- VII. SWEETS.
- VIII. ACRIDS.
- IX. AROMATICS.
- X. BITTERS.
- XI. Substances of COMPOUND QUALITIES.
- XII. Simples not reducible under the foregoing Heads.

S E C T. I.

ACIDS.

Class 1. *Mineral*: the acids of vitriol, nitre, and common salt.

Class 2. *Vegetable*: { *native*; as sorrel, juice of lemons, barberries, and other fruits.
 { *produced by fermentation*; as vinegar and tartar.

THE first of these classes, viz. the mineral acids, are distinguished by the names of the concretes from which they were at first extracted; the vitriolic from vitriol, the nitrous from nitre, and

and the marine from common sea-salt.

All these acids are highly corrosive, unless largely diluted with water, or united with such substances as suppress their acidity. Mixed hastily with vinous spirit, they raise a violent ebullition and heat, accompanied with a copious discharge of noxious fumes; a part of the acid unites intimately with the vinous spirit into a new compound, void of acidity, called dulcified spirit. The marine acid is much less disposed to the union with spirit of wine, than either that of vitriol or nitre: nevertheless, many of the compound salts resulting from the combination of earthy and metallic bodies with this acid, are soluble in that spirit, while those with the other acids are not. All these acids effervesce with alkaline salts, both fixt and volatile, and form with them neutral salts.

The nitrous and marine acids are obtained in the form of a thin fluid, the acid part being blended with a large proportion of water, without which it would be diffused into an incoercible vapour: the vitriolic acid stands in need of so much less water for its condensation as to assume commonly an oily consistence (whence it hath been called oil of vitriol) and in some circumstances even a solid one.

The vitriolic acid, in its concentrated liquid state, is much more ponderous than either the nitrous or the marine; it emits no visible vapours in the heat of the atmosphere, but imbibes moisture therefrom; the nitrous and the marine emit copious corrosive fume, the nitrous yellowish red, and the marine white ones. The

corks used to stop the bottles which are used to contain these acids, are corroded, and tinged by the vitriolic of a black colour, by the nitrous of a yellow, and by the marine of a white.

Alkaline salts, and the soluble earths and metals, absorb from these acid liquors; only the pure acid part: so that the water may be evaporated by heat, and the compound salt left in a dry form.

The vitriolic acid, diluted with water, easily dissolves zinc and iron; in its concentrated state, it requires a boiling heat to enable it to corrode most of the other metals. The nitrous acid is the common menstruum of all metallic substances except gold and the metallic part of antimony; of which two, the proper solvent is a mixture of the nitrous and marine acids, called aqua regia. The marine acid dissolves zinc, iron, and copper; it requires much art to make it dissolve any other metal. The vegetable acids dissolve zinc, iron, copper, lead, tin, and part of the metal of antimony.

The medical effects of acids, duly diluted and exhibited in proper doses, are, to cool, quench thirst, and allay inordinate motions of the blood. By these qualities, in hot bilious temperaments and inflammatory disorders, they frequently restrain immoderate hæmorrhages, and promote the natural secretions; in some kinds of fevers they excite a copious diaphoresis, where the warm medicines called alexipharmic, tend rather to prevent this salutary discharge.

Vegetable acids, particularly the native juices of certain plants and fruits, have some degree of a saponaceous quality; by means of which they attenuate or dissolve viscid

viscid phlegm, and deterge the vessels; and thus prove serviceable in sundry chronical disorders. Inveterate scurviës have sometimes yielded to their continued use, especially when given in conjunction with medicines of the acrid or pungent kind: experience has shewn that the acrid antiscorbutics have much better effects when thus managed, than when exhibited by themselves; hence in the *succi scorbutici* of our Dispensatory, Seville orange juice is usefully joined to that of the *coclearia* and *nausturtium*.

The mineral acids instantly coagulate blood: the vegetable dilute it, even when inspissated or thickened by heat; in which state, watery liquors will not mingle with it. Hence in some fevers, where

water runs off by the kidneys almost as pale and insipid as it was drank, vegetable acids soon render the urine of the due colour and quality. The mineral acids (the spirit of nitre in particular) combined with vinous spirits, have the same effect.

Acids of every kind are prejudicial in cold, pale, phlegmatic habits, where the vessels are lax, the circulation languid, bile deficient, and the power of digestion weak. In these cases, an acid is often generated in the stomach, from milk and most vegetable foods, which, whilst it continues in the first passages, occasions uneasiness about the stomach, flatulencies, sometimes griping pains of the bowels, vomiting, or the *cholera morbus*.

S E C T. II.

Earths.

The different kinds of earths are,

I. Earths, capable of absorbing acids. II. Earths not soluble in acids.

I. **T**HE earths soluble in the nitrous, marine, and vegetable acids, but not at all, or very sparingly, in the vitriolic acid, are, 1. The mineral calcareous earth, which is distinguished by its being convertible, in a strong fire, into a calx which is called quick-lime, of this kind are, fine soft chalk; the coarser lime-stones; the harder marbles; the transparent spars; the earthy matter concealed in waters, which incrustates the sides of the caverns. &c. 2. The animal calcareous earth, which, like the above, burns into quick-lime. Of this kind are oy-

ster shells, and indeed all the marine shells; the quick-lime produced from them varying only in the degrees of its strength. 3. The earths of bones and horns, distinguished from the above by not burning into quick-lime. These earths dissolve more difficultly in acids, than any of the foregoing.

The earths soluble in all acids are, the *magnesia alba*, and the aluminous earth.

The virtues of the insipid earths, viz. oyster-shells, crabs-claws, crabs-eyes, corals, pearls, chalk, all the marles, lime-stones, marbles, spars, bezoars, &c. are to absorb or de-

stroy acidities in the first passages, and consequently to remove such disorders as proceed from that cause. The cordial alexipharmic, antifebrile, and other like virtues attributed to these medicines, appear to have little foundation; or at best, are only secondary ones. When united with the acid, they form a neutral saline compound, possessing some degree of an aperient and detergent quality, tho' too inconsiderable to be in general regarded.

The absorbent earths were strangers to medicine till the time of Helmont; and their use does not seem to have been established before the last century; when some practitioners, from an opinion that most kinds of diseases proceeded from a preternatural acid, introduced a great variety of antacid bodies, both of the earthy and saline kind; and very liberally exhibited them on almost every occasion.

It is certain that in children, and adults of a weak constitution, and whose food is chiefly of the vegetable acescent kind, sundry disorders are occasioned by acidities; these readily discover themselves by four eructations, the pale colour of the face, and in children by the sour smell and green colour of the alvine faeces, which are sometimes so manifestly acid as to raise a strong effervescence with alkaline salts. In these cases, and these only, the use of absorbent earths is indicated.

If there are really no acid juices in the ventricle, these earths are apt to concrete with the mucous matter usually lodged there, into hard undissoluble masses; which have sometimes been thrown up by vomit (*V. Zavelf. Animadv.* in

Ph. Aug. p. 66. *Miscell. N. C.* dec. 2. *Ann.* 6. *Obs.* 24. *Aët. N. C.* vol. ii. *Obj.* 139.) or found in the stomach upon dissection (*V. Hoffm. de benign. remed. abusu.*) Hence indigestion, loss of appetite, nausea, vomiting, obstructions of the bowels, and other disorders. Sometimes the stomach and intestines have been found lined with a crust, as it were, of these earthy bodies, (*V. Albert. Diss. de Atrophia*, Sect. 10.) which must not only have prevented the separation of the gastric liquor, but likewise closed the orifices of the lacteal vessels, so as to obstruct the passage of the chyle into the mass of blood.

Some suppose the earthy powders capable (without the concurrence of any acid) of passing the lacteals along with the chyle; and allege, in support of this opinion, that when triturated with water, they are in part taken up, and carried with it through a filter of paper; the filtrated liquor leaving, upon evaporation, a portion of whitish earthy matter. This experiment, (allowing the consequences drawn from it to be just) is itself erroneous: the residuum proceeds from the earth naturally contained in the water, not from that employed in the experiment; for if pure distilled water be made use of, it will leave no residuum though long triturated, or digested with the earth.

All these bodies, particularly those of the animal kind, contain, besides their purely alkaline earth, a portion of glutinous matter. An instance of this we have in crabs eyes, which, if macerated in the weaker acids, or the stronger, sufficiently diluted with water, the earthy part will be dissolved, and
the

the animal glue remain in form of a soft transparent mucilage. The glutinous substance increases their tendency to concrete in the stomach; and hence those which contain least thereof should be preferred to the others. The mineral earths contain the least of this kind of matter, and some of them are very easy of solution; chalk for instance; which may therefore be given more liberally, and with greater safety than the animal absorbents. These substances divested of their conglutinating matter by means of fire, are reduced into acrimonious calces or limes, and thus become medicines of a different class.

The teeth, bones, hoofs, and horns of animals, consist of the same principles with the animal absorbents above mentioned, but combined in different proportions: The quantity of gelatinous matter is so large as to defend the earthy part from the action of weak acids; whilst the earth, in its turn, protects the gluten from being dissolved by watery liquors. Hence these bodies in their crude state, though

recommended as possessing singular virtues, are not found to have any virtue at all.

Experiments have been made for determinating the degree of solubility, or comparative strength of these earths; the principal of which may be seen in page 6, reduced into the form of tables. These experiments do not sufficiently ascertain the point intended by them: in the first sett the quantity of acid is too vague and undetermined: in the second, we are not told whether the acid was perfectly saturated; and in both, the acids made use of were so very different from any that can be supposed ever to exist in the human body, that little can be concluded from them with regard to the medical effects of these absorbents. Trial should have been made with the mild vegetable acids, as the juices of certain fruits, sour fermented liquors; or rather with sour milk. Nevertheless these tables, though not so perfect as could be wished, have their real use in the hands of such as can make proper allowances.

S E C T. III.

Earths not dissoluble in Acids, or other Liquors.

THE earths of this kind are,
 1. Argillaceous earths, which become hard by burning in the fire. Such are the purer clays, boles, and ochres. 2. Crystalline earth, which is naturally hard, so as to strike sparks with steel: becoming friable in a strong fire. Such are flints, crystals, and most of the precious stones, &c. 3. Gyp-

seous earths, which are reducible by a gentle heat into a soft powder, which unites with water into a mass, somewhat viscous and tenacious while moist, but quickly drying and becoming hard. Such are the transparent felspar, English tale, and plaster of Paris stones. 4. Talky earth: which is scarcely alterable by fire.

These kinds of substances were introduced into medicine, and many fabulous virtues attributed to them, by the superstition of the earlier ages. Some of them are still preserved in foreign pharmacopœias, but at length very justly expunged from our's, notwithstanding what some late writers of repute speak of their medical virtue. These indissoluble hard bodies are not capable of producing any other effect, than by their rigid angular particles (which, tho' levigated with the utmost care, the microscope still discovers in them), to offend or wound the intestines. In levigation, they wear off so much from the hardest marble instruments, as will equal or exceed their own weight: from this circumstance we may account for their having sometimes appeared to act as absorbents. Some of these stones, exposed to a vehement

fire, become in some measure friable; but nevertheless remain indissoluble. Most of the coloured ones by this treatment lose their colour; and in this state, prove nearly of the same quality with common crystal; such are the sapphire, emerald, amethyst, and cornelian. Others melt into a blackish vitreous matter, from which a portion of iron is obtainable by proper fluxes; as the hyacinth and granate. Geoffroy concludes from hence, that these stones really possess some medical virtues, depending upon their metallic part; but the quantity of metallic matter sufficient to give them a considerable tinct, is almost infinitely small, and so inclosed in a stony matter not at all soluble by any of the known menstrua, as scarce to admit of any possibility of its acting in the human body.

S E C T. IV.

Glutinous, vegetable, and animal Substances.

Class I. *Vegetable.*

Pure gums:

Tragacanth,

Seneca,

The gums of cherry, plum, and other European trees.

Vegetables abounding with mucilage:

Orchis roots,

Althæa root,

Quince seeds, &c.

GUMS and mucilage are glutinous vegetable productions, of no particular taste or smell, soluble in water, but not in vinous spirits, acids, or in oils. They differ from one another only in degree of tenacity: the more tenacious are called gums; those

which are less so, mucilages. The first naturally exude from certain trees and shrubs; the latter are extracted by art. Almost all vegetable substances contain some portion of these, which after the resinous part has been extracted by spirit, may be separated from the remaining

remaining matter by means of water.

The general virtues of these kinds of substances are, to thicken the fluids, and defend the solids from them, when grown sharp or corrosive. Hence their use in a thin acrimonious state of the juices, and where the natural mucus of the intestines is abraded.

By a little quantity of water, gum is softened into a viscous adhesive mass, called mucilage, and is then easily miscible, both with fats and the fluid oils, and with

resins, which by this means become soluble in watery liquors along with the gum. As oily and resinous substances are thus united to water, by the means of gum, so gums may in like manner be united to spirit of wine by the intervention of resins and essential oils; though the spirit does not take up near so much of the gum, as water does of the oil and resin. Alkaline salts prevent the solution of gum, and the mixture of gum with oil, &c. but acids have not such an effect.

Class 2. *Animal.*

Most animal substances (the fat excepted) contain a viscous matter, in many respects similar to the foregoing, and capable of being extracted by strong coction in water.

Animal glues and jellies have the general qualities of the vegetable gums and mucilages; with this difference, that the former are more nutrimental, and apt to run into a putrid state. Considered as the subjects of chemistry, the difference betwixt them is

very great: those of the animal kind are changed by fire into a volatile alkaline salt, and a foetid oil; the vegetable into an acid liquor, and a very minute portion of oily matter, considerably less foetid than the former. The gelatinous principle of animals, like the gum of vegetables, dissolves in water, but not in spirit or in oils; like gums also it renders oils and fats miscible with water into a milky liquor.

S E C T. V.

Soft unctuous Substances.

Class 1. *Inspid vegetable Oils; and Substances abounding with them, as Almonds, and the Kernels of most Fruits; Linseed, and the medullary part of sundry other Seeds.*

Class 2. *Animal Fats; as Spermaceti.*

U NCTUOUS vegetables unite with water by trituration, into a milky liquor, and give out

their oil upon expression.—These kinds of oil, and animal fats, dissolve in alkaline menstrua, which

change their quality, and reduce them into a soap, dissoluble in water, but more perfectly in vinous spirits: from this compound the oil may, by a skilful addition of acids, be recovered in a purer state than before, and rendered soluble, like essential oils, in spirit of wine. Animal oils and fats, like the gross oils of vegetables, are easily united with water by the intervention of gum or mucilage.

The medical virtues of these substances are, to obtund acrimonious humours, and to soften and relax the solids: hence their use internally, in tickling coughs,

heat of urine, pains and inflammations; and externally in tension and rigidity of particular parts. The milky solutions, commonly called emulsions, though much less emollient than the oils themselves, or animal fats, have this advantage, that they may be given in acute or inflammatory distempers, without danger of the ill consequences which the others might sometimes produce: fats and oils, kept in a degree of heat no greater than that of the human body, soon become rancid and acrimonious; whilst emulsions tend rather to grow sour.

S E C T. VI.

Astringents.

Galls,
Tormentil root,
Bistort root,

Balaustines,
Terra Japonica,
Acacia, &c.

ASTRINGENT substances are distinguished by a rough austere taste, and changing solutions of iron, especially those made in the vitriolic acid, of a dark purple or black colour.

Astringents yield their virtues by infusion both to water and vinous spirits, generally in greatest perfection to the former. Oils extract nothing from them. Nor do they give over any of their virtue in distillation: nevertheless their astringency is considerably abated by evaporating decoctions of them to the consistence of an extract; and totally destroyed by long keeping.

The medical effects of these kinds of substances are, to constringe the fibres, and incrassate or

lightly thicken the juices. Their more experienced use is in disorders proceeding from a debility, or flaccid state, of the solids; in hæmorrhages, from a thinness of the blood, laxity, or rupture of the vessels; in preternatural discharges of other kinds, after the offending matter has been duly corrected or evacuated; and externally, in solutions of continuity. In some cases they produce the effects of aperients; the vessels, constricted and strengthened by them, being enabled to protrude the circulating juices with greater force.

A good deal of caution is requisite in the exhibition of these medicines, especially those of the more powerful kind. In plethoric habits, inveterate obstructions, critical

cal evacuations, and in all kinds of fluxes in general before the morbid matter has been expelled, or where there is any stricture or spasmotic contraction of the vessels, astringents prove eminently hurt-

ful. Where critical dysenteries or diarrhœas are restrained by styptics, the acrimonious matter, now confined in the intestines, corrodes or inflames them; and sometimes occasions a gangrene of the parts.

S E C T. VII.

Sweets.

Sugar,
Honey,

Raisins,
Liquorice, &c.

THE vegetable sweets are a very numerous tribe; almost every plant that has been examined, discovering in some of its parts a saccharine juice. The bottoms of flowers, and most kinds of seeds and grain when they begin to vegetate, are remarkably sweet.

Vegetable sweets are extracted both by water and vinous spirits; most readily by the first, but in greatest perfection by the latter. Nothing of their taste arises in distillation with either of these liquors: nevertheless, by long boiling with water they become somewhat less agreeable; but are not much injured by being treated in the same manner with rectified spirit.

The purer sweets, as sugar, promote the union of distilled oils with watery liquors, and prevent the separation of the butyraceous part from milk: from this quality, they are supposed to unite the unctuous part of the food with the animal juices. Hence some have concluded, that they increase fat: others, that they have a contrary

effect, by preventing the separation of the unctuous matter which forms the fat, from the blood: and others, that they render the juices thicker and more sluggish, retard the circulation and cuticular excretion, and thus bring on a variety of disorders. But sweets have not been found to produce any of these effects, in any remarkable degree: common experience shows, that their moderate, and even liberal, use is at least innocent; that they reconcile, not only to the palate, but the stomach also, substances of themselves disgusting to both; and thus render salutary what would otherwise be injurious to the body.

The unctuous and mucilaginous sweets, as the impure sugars, liquorice, &c. have a considerable degree of emollient and lubricating virtue. — Those accompanied with a manifest acid, as in the juices of most sweet fruits, are remarkably relaxing; and if taken immoderately, occasion diarrhœa and dysenteries, which sometimes have proved fatal.

S E C T. VIII.

Acrids.

ACRIDS are substances of a penetrating pungency, without any peculiar flavour. Applied to the skin, they inflame or exulcerate it: chewed, they occasion a copious discharge of the saliva: and snuffed up the nose, provoke sneezing.

These substances, considered as the subjects of Pharmacy, may be divided into three classes,

- yielding their acrimony {
1. In distillation with water: as horse-radish, mustard, scurvy-grass, &c.
 2. By infusion only: as the greater celandine pyrethum, &c.
 3. Neither to infusion, or distillation: as arum and dracunculus.

The general effects of acrid medicines are, to stimulate the vessels, and dissolve tenacious juices. In cold leucophlegmatic habits, stagnations of the fluids, and where the contractile power of the solids is weak, they prove powerful expectorants, deobstruents, diuretics, and emmenagogues; and if the patient is kept warm, sudorifics. In hot bilious constitutions, plethoric habits, inflammatory distempers, where there is already a degree of irritation, where the juices are too thin and acrimonious, or the viscera unsound; these stimulating medicines prove highly prejudicial, and never fail to aggravate the disease.

Certain acrid substances have been lately recommended in dry convulsive asthma: of the efficacy of the squill in particular, for

the cure of this disorder, several instances are related in the *Commercium Literarium* of Norimberg, for the year 1737 and 1739. It seems probable, that not the asthma itself, but a particular effect of it was removed by this medicine. In all asthmas, the free circulation of the blood through the pulmonary vessels, is impeded; and hence, during every paroxysm, the lungs are in a kind of œdematous state. If this œdema, becoming habitual, remains after the fit is over, it is either perpetually occasioning fresh ones, or gives rise to a dropsy of the breast. Acrid medicines, by removing the œdema, remove what was originally an effect of the asthma and in time a cause of its aggravation.

S E C T. IX.

Aromatics.

Aromatics are substances of a warm pungent taste, accompanied with a strong odour; as cloves, cardamom seeds, cinnamon, nutmegs, &c. Their peculiar qualities reside in a volatile oil, usually called essential, and a grosser resinous substance capable of being extracted by spirit of wine. The oil possesses the odour of the subject, and often its pungency and taste. The resin contains the whole of this latter, but has the former in a less degree.

The essential oils and resins of vegetables, at first intimately mingled with the aqueous and mucilaginous juices, separate by degrees, and are collected in little membranous vesicles. These are readily discovered by the microscope, in the rind of oranges and lemons, in juniper berries, nutmegs, the roots of elecampane, master-wort, spignel, angelica, fennel, Florence orris, and others; and by the naked eye, in the flowers of St John's-wort, and the leaves of the orange-tree. In the bark of the pine, fir, larch, and some other trees, these vesicles are extremely numerous and turgid with oil, inasmuch as (in the warmer climates) frequently to burst, and discharge their contents in notable quantity.

These oils consist of a subtile and of a grosser part. The unctuous liquors which spontaneously exude from different trees and shrubs, and the purer oils extracted from aromatic plants by art, in-

durate in a warm air into a solid resin, with remarkable loss of their fragrance. Distilled with pure spirit, the more subtile part arises, impregnating the liquid with the pungency and odour of the oil; the grosser matter, whose quantity is much the largest, remaining behind. This residuum, by repeating the operation with fresh spirit, becomes at length insipid and inodorous. The separation may also be effected, though with more difficulty, by a like procedure with water. Water, even by agitation, imbibes some of the more fragrant matter, leaving the oil weaker and less fragrant than before.

The quantity of this subtile matter varies in different oils; as does likewise that of the compound contained in different subjects. In general, the less oil any aromatic vegetable affords, the oil proves proportionably the stronger, and the more, the weaker. From cinnamon, for instance, we obtain an oil very small in quantity, but extremely pungent; whilst cloves, a spice much more pungent than the other, yields a much larger quantity of oil, which proves in taste remarkably milder.—The greater pungency, as Neuman observes, of the oil of cloves usually met with, is adventitious. The oil genuinely distilled from this spice, is very mild. A tincture made in rectified spirit, is extremely acrid, and probably is the substance employed, for giving this quality to the oil.

The

The virtues of all aromatic vegetables are extracted by vinous spirits; very imperfectly by watery liquors. In distillation, they arise with water more perfectly than with spirit; some give over exceeding little to pure spirit; hence the spirituous extract possesses their taste and flavour in an

eminent degree, whilst the watery ones have nothing of either.

Aromatics, considered as medicines, warm the stomach, and by degrees the whole habit, raise the pulse, and quicken the circulation: hence, in cold languid cases, they increase strength, and promote the natural secretions.

S E C T. X.

Bitters.

Gentian root,
Hops,

Lesser Centaury,
Carduus, &c.

BITTERS yield their virtue both to watery and spirituous menstrua; some more perfectly to one, and others to the other. None of the substances of this class give over any thing considerable of their taste in distillation, either to water or to spirit; their bitterness remaining entire, and frequently improved in the extracts. Such as are accompanied with flavour, as wormwood, may by this process be reduced into simple flavourless bitters.

These substances participate of the virtues of astringents and aromatics. Their general effects are, to constrict the fibres of the stomach and intestines, to warm the habit, attenuate the fluids, supply the deficiency of bile, and promote the natural evacuations, particularly of sweat and urine. In weakness of the stomach, loss of appetite, indigestion, and the like

disorders, proceeding from a laxity of the solids, or cold sluggish disposition of the juices, these kinds of medicines do good service. Where the fibres are already too tense and rigid, where there is any immoderate heat or inflammation, bitters very sensibly increase the distemper; and if their use is continued, communicate it to the kidneys: hence the urine becomes high coloured, small in quantity, and at length suppressed; a dropsy soon succeeding: if the kidneys were before so lax as to remain now uninjured, yet the other viscera become gradually more and more rigid, and a tabes is at length brought on.

Bitter substances destroy insects, and prevent putrefaction. Hence they are recommended as anthelmintic; and externally as antiseptics.

S E C T. XI.

Substances in which two, three, or more of the foregoing qualities are conjoined:

As { Aromatic and bitter
Aromatic and astringent
Aromatic, bitter, and astringent } in { lemon peel.
cinnamon.
Peruvian bark.

THE several tastes (and medical virtues depending thereon) of the bodies which come under this head, are extracted by the same means as from those in which they are less compounded. Thus the aromatic part of lemon peel arises in distillation with wa-

ter, whilst the bitter remains behind in the extract; the aromatic part of bark is dissipated by long coction in water, the bitter remaining in the extract entire, and the astringency (as a simple astringent would be by the same treatment) considerably impaired.

S E C T. XII.

Substances not reducible under the foregoing heads.

Class 1. *Metallic and mineral bodies.*

Class 2. *Neutral salts, as nitre, common salt, &c.*

Class 3. *Opium, hemlock, &c.*

For an account of the bodies of these three classes, we refer to the several articles themselves in the second book.

Class 4. *Acrid and bitter substances, which generally act as emetic or cathartic.*

Hellebore,
Jalap,
Ipecacuanha, &c.

Colocynth,
Scammony,
Gamboge, &c.

These substances consist of a resinous part, in which the purgative or emetic quality reside; and a gummy-saline one, which acts chiefly as a diuretic. The first is extracted or dissolved by vinous spirits; the latter by water. No-

thing arises in distillation from either.

The acrid resins, exhibited by themselves, tenaciously adhere to the coats of the intestines, by their stimulating power irritate and inflame them, and thus produce sundry

dry violent disorders. Hoffman relates, that he has sometimes observed convulsions, and a paralysis of both sides from their use.

These inconveniences may be prevented, by previously triturating them with substances capable of dividing their tenacious texture, and preventing their adhesion. By this means, they become mild and safe, operate without disturbance, and at the same time more effectually answer the purposes intended by them.

Some have endeavoured to correct the ill quality of the resinous purgatives, by the addition of acids and aromatic oils. Acids weaken their power, but have no other effect than what a diminution of the dose would equally answer. The pungent essential oils may serve to warm the stomach, make the medicine sit easier, and thus prevent the nausea, which sometimes happens; but as soon as the resin begins to exert itself in the intestines, these oils, instead of correcting, increase its virulence; being themselves apt to occasion the inconveniences which they are here intended to prevent, an irritation and inflammation of the bowels. Alcaline salts or soaps have a better effect; as they dispose the resin to solution, and promote its operation.

The medicines of this class seem to act by liquefying the juices, and stimulating the coats of the stomach and intestines. If the irritation is strong and sudden, their action is quick and upwards: if slower, downwards. Cathartics given in a liquid form, or in very sensible habits, often prove emetic; and emetics where mucus abounds, cathartic. They operate more violently in robust constitutions, than in those of a contrary temperament; the vessels being in the former more tense and rigid, and consequently less capable of bearing an equal degree of irritation.

The action of these medicines is extended beyond the *primæ viæ*: this appears evident from the increase of the pulse, which always accompanies their operation; and from the common observation of children being purged by the milk, if the nurse has taken a cathartic. Some of them, particularly hellebore, are said to purge, if only applied externally in issues. Purgatives, even of the more powerful kind, exhibited in suitable small doses, in conjunction with the milder aperients, may be introduced into the habit, so as to prove notable deobstruents, diuretics, and diaphoretics, without acting sensibly by stool.

P A R T II.

Practice of PHARMACY.
IN FIVE BOOKS.

- BOOK I. *Preparations of Simples.*
II. *Saline Preparations.*
III. *Metalline Preparations.*
IV. *Officinal Compositions.*
V. *Extemporaneous Forms.*
-

B O O K I.

Of the Preparations of Simples.

HAVING given in the first part, all that is necessary to be known of the general nature and medicinal virtues of Simples, with the several methods of operation by which they may be fitted for medicine; I shall now proceed to such particular preparations of each of them as are previously necessary, either to their administration singly, or to their admission into officinal or extemporaneous compositions.

Of Spirits.

By Spirits here are meant, first of all such as become so in vegetation, and are the production of nature; and then, such as are made so by fermentation and art. Of the former kind there is none, strictly speaking, but in vegetables;

ables ; and amongst those, only in such as are discoverable by the scent, and quickness of their odour.

Of this kind are all scented vegetables, whether sweet or fetid : which should be distilled green or dry ; as the texture of the vegetable substance is fitted to lose or retain those volatile parts, which is best known by experience ; for those plants, whose volatile parts are so loose in their combinations, that they fly off in drying, ought to be committed to the still as soon as gathered ; as Lilies of the Valley, Baum, and those of a tender scent ; whereas those which preserve their volatility, as Marjoram, Rosemary, and the stronger aromatics, may be trusted when dry ; if they have not been kept too long. These are all best raised in the Alembic with a Crane-head, the higher the better : and if a handful or two of pot-ashes are thrown in, they will both help to load and keep down the grosser phlegm, and separate and volatilize the finer parts. But some vegetables of a curious flavour will not admit of this addition, without undergoing a considerable change of their scent and taste ; as particularly Cinnamon, &c. As by the common way of running what comes off into an open receiver, many of the finer parts fly off, and are lost ; by the contrivance of a bladder and funnel, it may be conveyed into a bottle, as close as into a receiver with a retort. Take a strong bottle, of any convenient bigness, into which put a funnel ; tie to the worm a bladder, in the same manner as it is fitted to a glyster-pipe ; cut open what covers the aperture of the worm, and draw the

bladder back over the funnel ; so that it may be close tied about the neck of the bottle. By this means not a particle can be lost : but the fire must be more moderate than in open distillation ; otherwise it will force up the still-head, or burst the bladder or bottle. It is worth the while of those that are curious, to manage all their distillations of odoriferous plants this way, as the waters will be much the better for it.

The spirits of vegetable substances, especially of herbs, made by fermentation, cannot be depended upon to have much of the virtue of the plants in them : for in fermentation of an odoriferous plant, the spirit, which nature has made, flies away in that intestine motion ; so that what is afterwards produced, has no advantage beyond those made from inodorous substances by the same artifice. Those writers therefore exceedingly err, who teach to ferment any plant whatsoever, in order to draw out any medicinal virtues ; because the spirit is made by the very action of fermentation, as has been before demonstrated. So that it signifies not so much what substances such a spirit is drawn from, as what properties reside in a spirit made by such contrivance.

In this limitation of the term, we have no spirits from either animals or minerals ; all under this denomination, obtained from them, being either not properly so, or procured by such artificial helps, as will come to be explained under their respective preparations.

All that has been here advanced is very easily applied to waters ; we shall therefore only subjoin,

join, that all the waters exhale from inodorous plants, are not worth distillation; because they cannot raise any thing besides phlegm; if, therefore, a person has such an opinion of those herbs which were termed cold, as Plantain, Scabious, and the like, as not to be easy without them; he had better take them in his fallads and broths, than distil them. This farther may be worth remarking, that all those plants which are deemed cold, are best when they shoot up rank and large; but of the hot, they are strongest when least succulent, and when the leaves shoot small.

Of Essential Oils.

Essential oils are obtained only from those vegetables, or parts thereof, that are considerably odorous. They are the direct principle, in which the odour, and oftentimes the warmth, pungency, and other active powers of the subject reside; whence their name of essences or essential oils.

Take any quantity of Gum, Berry, Seed, Herb, or Wood, proper to be bruised or powdered; let them be put into a copper still; and to them add eight or ten times their weight of common water: lute the head of the still, and to its refrigeratory or worm; raise a fire under it to make it boil; and in a little time the water and oil will run into the receiver, called the spout-receiver. When all the oil is apprehended to be come off, hold a spoon under the nose of the worm; and if any more comes with the water into the spoon, continue the fire longer: if no oil appears in the spoon, let out the fire; and separate the

water from the oil. Few of these oils are worth distillation, except in great quantities; that is to say, several stills full. And then when the oil is drawn from the first quantity, the same water must be saved to be poured back into the still; by which means also, if it be often repeated, such a water will be so impregnated with the ingredient, as to be worth keeping under the title of the Simple Water of such an herb, seed, &c.

Exactly the same method will draw the essential oil from any substance whatsoever that contains it, and those of some woods, as cinnamon, saffraſas, cloves, and the like, because they are heavier than water, will fall to the bottom; but are as easily separated by decanting the water by gentle inclination. As that of aniseeds, with some few others, will coagulate towards the latter end of the distillation; the water in the worm-tub should cease to be renewed; that it may grow warm, and dissolve away all that has condensed in its passage. The most valuable of this class are grievously sophisticated by the chemists and wholesale dealers, either with expressed oils, or such distilled ones as are cheaper, and approach nearest to their flavours. These cheats are discoverable either by specific weight, as in the oils of cinnamon, cloves, and the like, (no other answering exactly to the same standard;) or by evaporation of a little in a spoon; for if there be any mixture of an expressed oil, it will all remain, and the other exhale; as the oils of anise, caraway, &c. and lastly by dilution; so that the flavour is but just retained: which will much sooner discover a foreign

fecat, than when collected in its full strength.

Essential oils unite with rectified spirit of wine, and compose with it one homogeneous transparent fluid. Water also, though it does not dissolve their whole substance, may be made to imbibe some portion of their more subtil matter, so as to become considerably impregnated with their flavour. By the admixture of sugar, gum, the yolk or white of egg, or alkaline salts, they are made totally dissoluble in water. Volatile alkalies improve the odour of essential oils; but fixed alkalies impair it.

Of fixed Salts.

Take any plant, burn it on a clean hearth, and rake the ashes as long as any fire appears amongst them; put these ashes into an unglazed pan; which set in a calcining furnace: make a fire about it, till the pan is red-hot; where keep it continually stirring the ashes, till they lose all their blackness. Then put them into a clean pan, and pour hot water to them; when that water is sufficiently impregnated with salt, filter it, and evaporate to dryness; and do thus until the ashes are left insipid.

We meet in the chemical shops with these fixed salts of a great many plants; and the common prescriptions take some notice of the different kinds: but the practitioner, who thinks there is any real difference between them, corresponding to the plants they are obtained from, may rest satisfied that those dexterous and wonderful conscientious artificers, the chemists, can furnish him with a lixivial salt of any plant he can

call for, made from the *Cineres Clavellatti*, or pot-ashes. It would, however, be well enough, did we lie open but in this particular to such impositions; for let the plant be what it will before it is reduced to ashes, the fire brings it to that texture and make of parts, into which it reduces any other; so that a salt made from the lixivium of any vegetable ashes whatsoever, will be always the same.

Of Potestates, or Powers.

There is a form of preparation, which Salmon chiefly introduced for the sake of his brother Empirics, and those who were for cutting the shortest way to profit, called *Potestas*, or power. This is an incorporation of the essential oil of any vegetable with spirit, by the intermediation of *Sal Armoniac*: and this was chiefly designed for the extemporaneous making of waters; for with a small quantity of such medicines, and common water, there was always in readiness whatsoever of that kind could be called for. The *Elcosacchara* likewise have been contrived for the same purposes. These are a mixture of an essential oil with sugar; which will dissolve in a strong spirit; and so make, on a sudden, without the help and expence of a still, either cinnamon, orange, or any other water that is required. So that by these artifices, all the simple and compound waters of a shop may be enclosed in a small cupboard: an admirable contrivance for chamber-practice! but very injurious and detrimental to the patient: for there is no way of mixture imaginable, that can

to well incorporate the volatile oily part of the plant with its phlegm, as distillation does. So that the waters made this way will not only be more unfit for present use; but also be much sooner slimy, vapid, and sour. They who think it worth their while to fall into this way, may make the *Potestates* of any thing in the same manner as is directed in the preparations of amber.

The Purification of Aloes, and all substances of the like kind.

If the aloes has any mixture of straws, sticks, or gritty matter, very gently dissolve it in water, enough to pass it conveniently thro' a flannel cloth when warm; and afterwards evaporate to a due consistence.

Some for this purpose use spirit of wine, and others spirit of tartar, under the notion of better correcting the aloes; but that dissolvent is better for the apothecary which leaves the drug in its most natural qualities, after refinement from filth, for the physician to correct, in prescription, as he pleases.

Gums and resins of all sorts are to be cleared from any foreign mixtures by the like means; care being taken to let the dissolvent be as near as possible to the nature of the thing to be strained; and that the evaporation afterwards be not too hasty; for fear of carrying off any volatile parts of the drug, which is very apt to happen in

aromatic substances especially. There are many gums to be conveniently strained by the help of water, which will not mix with them; but upon cooling separate, and form into a clean mass ready for use, as Galbanum, Tacamahacca, and the like.

* E. D. *Aloes præparata, seu lota.*
Prepared Aloes.

The same as the preceding. The best aloes, appearing clear and pure, require no preparation.

Essentia Ambrægriseæ. Essence or Tincture of Ambergrise.

Take of ambergrise two drachms, the same quantity of sugar candy, musk half a drachm, and civet two grains: beat them together, and put the mixture into a phial. pour upon it of tartarized spirit of wine four ounces; stop the phial close, and set it in a slow sand digestion, for four or five days; and then decant the clear for use. If it be of consistence enough to congeal, or not run, when cold, put more spirit of wine upon the remainder for another digestion; and afterwards mix the liquors, and they will continue fluid.

Newman says, that the ambergrise dissolves readily and totally, if broke in pieces and put into twelve times its quantity of the spirit, and made to boil; before which the spirit hath but little effect: and if the spirit is impregnated with a little of any essential oil, it dissolves the ambergrise more readily, and in less heat than that of boiling.

* N. B. The Processes marked L. or L. D. are taken from the last Edition of the London Dispensatory, and those marked E. or E. D. from the Edinburgh Dispensatory.

This certainly makes the best of perfumes; and is in a very convenient form, either for any officinal use, to mix immediately with any medicine, or for extemporaneous prescription: the least touch of it leaves its scent upon any thing for a prodigious time. The sugar is only added the better to separate the adhesive parts of the ambergrise, and the other ingredients; and make them more easily join with the spirits. In constitutions where such sweets are not offensive to the head, (as in some, especially hysterical persons, they are,) there is nothing can be a more immediate cordial.

Tinctura Benzoini.

Tincture of Benjamin.

Powder 4 ounces of select Benjamin; put it into a matrafs, and add to it rectified spirit of wine one pound; fit the matrafs for a circulatory; lute the joint; and set it in warm sand for three or four days, now and then shaking it about; and in that time there will be made a fine tincture, which decant and keep for use.

This is good in asthmas, and other distempers of the lungs; given from 20 to 60 or 70 drops, in any convenient vehicle. But it is most used externally to smooth the skin, and take spots out of the face: 1 drachm of it put into 4 ounces of clean water, turns it white, and is called virgin's-milk. To this tincture may be added of storax 1 ounce, and balsam of Peru 1 drachm, which will render not only the scent more grateful, and make a deeper tinge in the spirit, but be also better for inward use.

Flores Benzoini.

Flowers of Benjamin.

Put into a shallow, flat-bottomed, earthen dish 2 or 3 ounces of Benjamin in gross powder; set on its cover, without luting; and keep it in a moderate heat in sand, or immediately over a small fire of charcoal: the flowers will presently begin to rise into the cover; which once in an hour, or hour and half, must be taken off; and wiped out upon a clean sheet of paper with a feather. There ought to be two covers to one bottom in readiness; that one may be put on as soon as the other is off. When the flowers begin to rise yellow, take the melted Benjamin out of the pot with a spoon; and put in more powdered Benjamin, as at the first, and so proceed until there are as many flowers as desired.

In this operation care must be taken, that the fire be not too strong, because it would thus throw up some oil, and discolour the flowers. These are a wonderful pectoral, and particularly excellent in asthmas; for they greatly attenuate and open the viscous obstructions, and cleanse the bronchia. They are convenient almost in any form, and give a very grateful scent to any composition. Their dose is from 3 to 10 or 12 grains.

L. D. Flores Benzoini.

Flowers of Benjamin.

Put powdered Benjamin into an earthen pot placed in sand; with a gentle heat the flowers will rise, and may be caught in a paper cone fitted to the pot.

The

The Benjamin may otherwise be put into a retort, and the flowers will rise, and be collected in the neck.

If the flowers are tinged with yellow, they are to be mixed with tobacco-pipe-clay, and re-sublimed.

E. D. *Flores Benzoini.*

Flowers of Benjamin.

Take of Benjamin powdered any quantity, put it into a glazed earthen pot, to the top of which a paper cone must be fitted; apply then a gentle heat to sublime the flowers: repeat this operation till the paper becomes foul with the oil. If the flowers are very foul with the oil, solution in warm water and crystallization will clear them.

The most commodious method of performing this process is by a retort.

Oleum & Spiritus Benzoini.

Oil and Spirit of Benjamin.

Take 1 pound of the black melted Benjamin, which remains after the sublimation of the flowers; put it into a retort; which place in a sand furnace; cover it well with sand; lute on its receiver; and make a gentle fire; then increase the heat gradually, and there will come over some oil and spirit; with some discoloured flowers: augment the fire more and more, till no fumes appear; and there will rise a blackish oil with an acid spirit; and the neck of the retort will be filled with discoloured flowers, which may be taken out, and put upon a clean brown paper, to suck up the oil.

These flowers, though not so beautiful, are as good for use as the former; and though both the oil, spirit, and flowers, acquire,

for the present, an empyreumatical scent; yet in six or eight months that will wear off, and become very fragrant.

After the same manner may be made the oil, spirit, and flowers, or volatile salt of any balsam: as those of Tolu, Peru, and the like. The spirit is diuretic, but not very pleasant, by reason of its empyreuma. The oil is accounted a good vulnerary, both in external and internal application. And for inward use, put 2 or 3 ounces of it into a cucurbit, capable of holding a gallon of liquor; add to it 5 or 6 pounds of water, and set in a sand furnace, luting on a head and a receiver; keep a gradual fire till the water is ready to boil; and the spirituous part of the oil will come over with the water, of a fine amber colour, and a fragrant scent; which is an admirable internal medicine, a powerful diuretic, and by some reckoned a specific against the stone and gravel in the kidneys and bladder. Its dose is from 5 to 15 drops, in a little refined sugar.

L. D. *Terrarum (a) aliorumque quæ aquâ non dissolvuntur corporum præparatio.* Preparation of earthy, and other Bodies, not soluble in Water.

Let these bodies be first pounded in a mortar; then ground on a levigating stone, a little water being added, to an impalpable powder; afterwards let them be dried on a chalk-stone, and lastly set for several days in a place which is warm, or at least not moist. In this manner the following bodies may be prepared. *Eruge*, Verdigrise; *Antimonium*, Antimony; *Corallium*, Coral; *Creta*, Chalk; *Lapis Bezoar*, Bezoar Stone, in
R 3 the

the levigation of which, spirit of wine must be used instead of water; (*b*) *Chelæ cancrorum apices*, Tips of Crabs Claws; *Lapis calaminaris calcinatus*, Calamine Stone calcined, as for making brass; *Lapis Hæmatites*, Blood Stone; *Margaritæ*, Pearls; *Oculi dicti cancrorum*, Crabs Eyes; *Ostreorum testæ*, Oyster Shells, being first well cleansed; *Ovorum testæ*, Egg Shells, being first freed from the membranes by boiling in water; *Succinum*, Amber; *Tutia*, Tutty. It is necessary in the levigation of Antimony, Calamine Stone, and Tutty, that the strictest care be taken to make the powder as (*c*) fine as possible.

(*a*) The title of this head is very inexplicit and inaccurate, but it is intended to mean the preparation of earthy, and such other bodies as are of a similar texture, in regard to their fitness to be powdered.

(*b*) These powders are now most generally prepared by mills, which is much more expeditious and effectual than the method here directed.

(*c*) The College have given here a very just caution in respect to the fineness of these powders; but they have omitted to mention the only method by which, without extreme trouble, it can be performed. This method is washing over; for the manner of which see the article Pulverization.

Bolus Armena præparata.

Prepared Bole Armenic.

Let the powder of bole armenic be made fine by washing over.

E. D. Lapis Calaminaris præparatus.

Prepared Calamine Stone.

Heat Calamine Stone till it is

red hot three times, quenching it each time in water; it is then to be pounded, levigated, and washed over: in the same manner is *Tutia*, Tutty, prepared.

Chelæ cancrorum præparatæ.

Prepared Crabs Claws.

Let the black tips of Crabs Claws be powdered, and then levigated on a marble.

Corallium præparatum.

Prepared Coral.

Coral is prepared as Crabs Claws; and likewise,

Cornu cervi calcinatum.

Calcined Hartshorn.

Margaritæ, Pearls.

Oculi cancrorum, Crabs Eyes.

Succinum, Amber.

E. D. Testæ Ostreorum præparatæ.

Prepared Oyster Shells.

Wash and perfectly cleanse the hollow shells of oysters, rejecting the flat ones; then expose them for some days to the heat of the sun; afterwards rub them in a marble mortar, till they become a paste; which must be again dried in the sun; and at last ground to an impalpable powder.

L. D. Axungia Porcinæ, seuque

Ovilli curatio. Preparation of Hogs-Lard and Mutton Fat.

Let them be cut into pieces and melted over a slow fire, a little water being added; then let them be separated from the membranous parts by straining.

L. D. Axungia Vipernæ curatio.

Preparation of the Fat of Vipers.

Melt the fat from the intestines; then let it be strained by being pressed gently thro' a linen cloth.

L. D. Mellis

L. D. *Melli despumatio.*

Purification of Honey.

Melt the honey in balneo, and let the scum be taken off as it rises.

L. D. *Scillæ coctio.*

Preparation of Squills, by baking.

The squills being freed from the outside rind, and the hard part next the root, let each be inclosed in a covering of paste made of wheat flour, and baked in an oven, till the paste shall have acquired a hard crust, and the squills are become tender throughout their whole substance.

L. and E. *Scillæ exsecatio.*

Preparation of dried Squills.

The exterior rind being peeled off, let the squills be cut transversely into thin slices, and dried by a very gentle heat. They are duly dried when they become friable, yet retain their acrimony and bitterness.

L. D. *Rhubarbari & Nucis Moschata torrefactio.* Preparation of Rhubarb and Nutmegs, by roasting.

Let them be exposed to a slow fire, till they are of a proper dryness for being powdered.

The rhubarb should be first cut in slices, and the nutmegs grossly powdered. All the use of roasting is, more easily to powder them.

L. and E. *Spongiæ usio.*

Preparation of burnt Sponge.

Burn the sponge in an earthen vessel covered from the air, till it becomes black, and will crumble; then powder it in a glass or marble mortar. It is used in scrophulous disorders and cutaneous foulnesses, in doses of a scruple 2 or 3 times a day. Its virtues depend on its vo-

latile salt combined with its own oil. The best method of burning it is first to cut it in small pieces, to free it from stoney and other foreign matter, then to put it into an earthen vessel, which being placed in the fire, let the sponge be moved about until it is black and friable; then whilst yet hot, powder it in a glass or marble mortar.

L. and E. *Pulparum extractio.*

Extraction of the Pulp of Fruit.

Let the fruits affording pulp, whether such as being used ripe are dry, or such as are used unripe, be boiled with a little water to soften them, then press them through a hair sieve, and afterwards boil them again in an earthen vessel over a slow fire, often stirring them to prevent their burning to the vessel, till they are of a due consistence.

In this manner the pulp of Cassia may be boiled out of the pods, and afterwards brought to a proper consistence by evaporating the water.

The pulps of fruit that are ripe and moist, may be passed through the sieve without any previous boiling.

L. D. *Styracis colatio.*

Purification of Storax.

Boil the storax till it becomes soft, then let it be put into a press, betwixt iron plates made warm, and there compressed, and the purified storax will be separated from the water.

In this purification of storax, great care should be used, that it be not suffered to burn in the boiling, nor the iron plates made over hot, lest it acquire any scorched scent; and that the operation

should be performed as quick as possible, after it is duly heated, there being a constant and great waste of the fragrance, whilst it continues hot: but the best purification is a tincture made with rectified spirit of wine.

L. D. Purification of *Asafætida*, *Galbanum*, and other Gums. (a)

Let the gum to be purified be sliced or bruised, and then dissolve it in boiling water; while it is yet of a boiling heat; let the foulness be separated from it by straining it through a linen cloth, using pressure, and afterwards let it be reduced to its former consistence, by evaporation in balneo, or by any other gentle heat.

Gums, such as *Galbanum*, which readily melt, may be also easily purified, by putting them in a bladder into hot water, till they are sufficiently soft to be forced by a press through a coarse linnen cloth. (b)

(a) The proper specification of gummy bodies fit to be purified by this method is omitted, viz. their solubility in water; for all such as will either absolutely dissolve in boiling water, or mix with it, so as to form a pulp, may with convenience be freed from impurities by this means.

(b) The same caution which was before given in the purification of storax, is equally necessary in this manner of straining the gums, that great regard be had to due heat, and quickness in the operation; for their essential oil is continually flying off while they remain hot.

Apes præparatæ.

Prepared Bees.

Put the bees into a convenient

vessel, and dry them by a very slow fire,

Bufo præparatus.

Prepared Toads.

Put the toads alive into an earthen pot, and dry them in an oven moderately heated, till they become fit to be powdered.

To avoid so cruel an operation, it would be well to suffocate them first, by holding them over the fumes of burning brimstone.

Magisterium Lapidis Caliminaris.

Magistery of Calamine.

Take calamine 4 ounces, beat it into fine powder, or levigate it as above; put it into a matraass, and pour upon it spirit of salt 1 pound; let them digest upon warm sand forty-eight hours: filter the dissolution, and precipitate the magistery with spirit of urine; free it from its salt by several ablutions, and dry it gently for use.

It is emetic and cathartic; and given in the like cases as antimonial emetics. Its dose is from 3 to 8 grains.

Caliminaris Diaphoreticus.

Diaphoretic Calamine.

Beat 4 ounces of calamine into fine powder; put it into a matraass; which place in a chimney; and put to it, by three or four ounces at a time, of spirit of nitre 1 pound; let it there stand covered from dirt, for twenty-four hours, then decant the liquor, which put into a retort; set it in a sand-furnace: and give a gradual heat to the third degree; and so keep it till no drops come over it. When all is cold, take the matter out of the retort, and keep it for use.

Some say it is a good sudorific; but

but it is little used. Its dose is from 10 grains to half a drachm, 1 ounce of it infused in half a pound of spirit of wine, makes an admirable collyrium; and does great service, by dropping it into the disordered eye, three or four times a day. Some likewise make a good collyrium, by quenching a lump of calamine of about four ounces, ten or twelve times in one pound of white wine.

Resina Jalapii, &c. Resin of Jalap, and the like Substances.

Take of the root of jalap, well bruised, any quantity, pour on it as much rectified spirit of wine, as will cover it to the height of four fingers; and digest them in a sand-heat, till a tincture is extracted. Filter the tincture through paper, then put it into a glass cucurbit; add to the remainder a proper quantity of water, and the resin will precipitate to the bottom, divide it into little cakes, and dry them with a very gentle heat.

Some only put to the tincture common water, which turns it milky, and lets fall the resin to the bottom; for resins will not be suspended in any menstruum lower than spirit: many knavish chemists mix with it common black resin; two parts of the latter to one of the former; but this may be known by putting it into rectified spirit, which will again dissolve the resin of jalap, but not touch the other. The virtues are the same as those of the root; which see in Sect. 8. Class 2. but it works rougher; because all such substances act with greater irritation upon the coats of the stomach and intestines, so as to be the authors of a great deal of pain and uneasiness; for which reason, this

is corrected with sugar, cream of tartar, or the like: whereby it is supposed to be brought into the same state as nature first presented it to us in the root. For some purposes indeed where the form is required to be small, as often in administration to children, this is best complied with, and most convenient. Its dose is from 3 grains to 1 scruple.

After the same manner are made the resins of guaiacum, scammony, turbith, and of all simples, which have in their compositions any thing of the like kind.

Tinctura Mellis, Tincture of Honey.

Take 1 pound of pure virgin honey; dispartate it in a clean earthen pan; and put to it 3 ounces of pure salt of tartar (or any other fixed salt) finely pulverized; stir them well together, and an ebullition will arise; stay till that is over, and take off the scum; put the mixture into a cucurbit uncut, and pour upon it one pound and a half of tartarized spirit of wine; close the mouth, and set it in the heat of digestion 48 hours; agitate the matter three or four times a day; and in that time the spirit of wine will have charged itself with the purest part of the honey. Decant it from the faces into a new cucurbit; lute on a head and receiver, and draw off one half of the spirit of wine in a gentle heat. That which remains will be a sweet thick tincture.

This is said to be an excellent pectoral medicine, and very powerfully to promote expectoration. Its dose is from 40 drops to 2 drachms, or a tea-spoonful, in any warm liquor; especially at going to bed.

Spiritus Mellis, Spirit of Honey.

Mix 1 pound of honey with 3 pounds of clean sand, and put it into a retort in a sand-furnace: make a fire of the first degree, for two hours: increase it to the second for two hours more, and so go on to the third; where let it remain, till no more fumes arise, nor drops will fall. There will then come over an empyreumatical spirit and oil: put them both into a cucurbit; and with a fire of the first degree, draw off the insipid water; and the second will raise the spirit.

This is a spirit only in the same sense that other acids are; for this is an acid, and will dissolve coral or pearl, as distilled vinegar. It is affirmed to be good to make the hair grow, and is used so much for that purpose, by rubbing any bald place with it, that it is to be met with almost in every shop, although it is of no value for any thing else.

Aqua Mellis Aromatica.

Sweet Honey Water.

Take of good French brandy 1 gallon; of the best virgin-honey and coriander seeds, ana 1 pound, cloves 1 ounce and half, nutmegs 1 ounce, Benjamin and Storax, ana 1 ounce, banilloes No. 4. the yellow rind of three large lemons: bruise the cloves, nutmegs, coriander seed and Benjamin; cut the banilloes into small pieces; put all into a cucurbit, and pour the brandy to them; and after they have digested 48 hours, distil off the spirit into a retort with a gentle heat.

To one gallon of this water add of damask rose-water, and orange-flower-water, ana 1 pound and half, of musk and ambergris, ana

5 grains. First well grind the musk and ambergris with some of the water, and afterwards put altogether into a large matraass; shake them well, and let them circulate three days and three nights in a gentle heat; then let all cool; filter and keep the water in a phial well stopp'd for use.

The person whom we take this water from (Mr. George Wilson), says, he often made it for king James II. and that it is an antiparalytic, smooths the skin, and gives one of the most agreeable scents imaginable. Forty or sixty drops put into a pint of clean water, are sufficient to wash the hands and face with; and the same proportion to punch, or any cordial-water, gives a most pleasant flavour.

In making the tincture of honey, the vessel must be big enough to hold eight times the quantity; else the ebullition will be apt to make it boil over. In the spirit of honey, the sand is to prevent it from boiling over; notwithstanding which it will swell and bubble, so that the retort ought not to be above half full. In its rectification, fit a receiver without luting; and as soon as the acidity is perceivable, change the receiver; lute it; and draw off the spirit in a heat not exceeding the third degree. And if a twelfth or sixteenth part of spirit of nitre dulcified, be added, it will abate its unpleasant scent. In the last process the honey more powerfully opens the aromatics; which otherwise would afford but very little odour.

Catechu.

Make any quantity of Japan-earth into powder; dissolve it in small cinnamon-water; pour off the

the dissolution from the fæces, and dry it gently: when it is dry mix 2. ounces of it with three ounces of sugar-candy, spirit of roses 15 drops, ambergris half a scruple, musk 15 grains; grind them all together till they are impalpable; and with the mucilage of gum tragacanth make them into little pills, of the bigness of pearl-barley.

One of these held in the mouth causes the breath to smell sweet; and renders all liquors very palatable. Forty or fifty may be swallowed in a day for catarrhs, diarrhœas, gonorrhœas, and defluxions of all kinds. They answer all the ends of the earth itself, described in Sect. 2. Class 3. of Minerals.

Infusum Corticis Peruviani.

Infusion of Peruvian Bark.

Take an ounce of Peruvian bark finely powdered, and 12 ounces of water; macerate without heat for 24 hours, now and then shaking the vessel; then pour off the clear liquor, and pass it through a fine strainer.

Custom has hitherto prevailed in extracting the virtues of Peruvian bark by coction in water; but late experiments prove that this drug gives out more to cold than to boiling water. This infusion is the best preparation of the bark for weak stomachs, and may be given with every advantage expected from the decoction in intermitting fevers, &c. where this medicine is required. Dose 2 or 3 ounces.

L. D. and E. D. *Millepedarum, præparatio.* Preparation of Wood-lice.

The wood-lice being wrapt in

a very coarse thin linen cloth, let them be hung up in a close vessel over heated spirit of wine, that they may be killed, and become fit for powdering.

Vinum Millepedum.

Wine of Wood-lice.

Take 4 ounces, or a quarter of a pint, of Millepedes alive; infuse them in 2 pounds of white wine, with a drachm of English saffron; shake them often, and let them stand two or three weeks; then filter the wine for use.

The bottle must always have vent when shook, else it will be apt to fly. The wine will have a brackish pungent taste; not much unlike what salt of amber gives to any liquor. It is an admirable cleanser of all the viscera; and gives place to nothing in the jaundice, or any obstructions of the kidneys, or urinary passages: which makes it a great pity that it is not more in use; for there is hardly any chronic distemper wherein it will not do service; and even in scrophulas and strumous swellings, a course of it will greatly waste them, if not quite carry them away: and in defluxions of rheum upon the eyes, it will do wonders; by turning downwards those hot salts, by their natural outlets, the kidneys; which had forced their way through the glands about the eyes. It may be given from half an ounce to 2 ounces in a dose.

E. D. *Vinum Millepedatum.*

Millepedes Wine.

Take 2 ounces of wood-lice alive, bruise them, then pour on them a pint of Rhenish wine: infuse them a night, and afterwards strain and press out the fluid.

Spiritus,

Spiritus, Sal Volatile, & Oleum Millepedum. Spirit, Volatile Salt, and Oil of Wood-lice.

Put any quantity of Millepedes into a long-bodied retort, so that it be not above half full: place it in a sand-furnace; lute on its receiver; and give a moderate heat till the retort is thoroughly hot: then increase the fire a little, and thus keep it two or three hours, according to the quantity of wood-lice made use of; and some liquor will drop into the receiver, and the volatile salt will begin to rise: increase the heat yet more; then cease, and take off the receiver, when it is cool; where there will be a spirit, an oil, and a salt; which must be separated and rectified apart; or put all together into a long-necked matrass, luting on a head and receiver; and separate the salt by sublimation, as that of vipers.

This differs in no respect from the volatile salt of any other animal substance, though it has erroneously been said to contain the virtue of the Millepedes. The dose may be from 3 to 16 grains.

Oleum Myrrhæ. Oil of Myrrh.

Half fill a retort with coarse myrrh, join on a receiver; in a sand-furnace, give it fire, by degrees, to the greatest height: when the fumes cease, let out the fire, and in the receiver there will be a fetid oil, and an acid spirit.

After the same manner are to be obtained the oils of all the like substances; and they may be rectified, as before directed in the oil of Benjamin; which makes them much pleasanter for use. This is reckoned diaphoretic and diuretic; but is seldom prescribed. Exter-

nally it brings bad ulcers to a kind of suppuration. Its dose is from 1 to 24 drops in any proper liquor.

Oleum Myrrhæ per Deliquium.

Oil of Myrrh by Resolution.

Boil eggs till they are hard, split them in the middle, and take out the yolks: fill the cavity with fine myrrh in powder; place them upon little sticks about an inch and a quarter long, three or four of them being pricked into the egg; set them in a clean pan in a cellar, or some such moist place, and there will drop from them into the pan a liquor, which is called Oil of Myrrh.

This is used only externally, to take off blemishes and spots on the skin; and is recommended as excellent for such purposes, and particularly for sore and chopped nipples.

Tinctura Euphorbii.

Tincture of Euphorbium.

Put into a phial what quantity you please of pulverized euphorbium; and pour upon it oil of tartar *per deliquium*, about four fingers high; stop the phial, place it in digestion upon hot sand, leave it there for two days, and there will be made a deep yellow or reddish tincture; strain it, and keep it in a glass bottle.

This is very penetrating, incisive, attenuating, and powerful in cleansing old foul ulcers, carious bones, and the callous lips of wounds: it is good also to dissolve scrophulous tumours, and very obstinate indurations of the glands.

Preparations of Opium.

It would be endless to give all the

the preparations we meet with of this most celebrated drug in Dispensatory writers. A very large collection of them may be found in the *Collectanea Chemica Lydensia*. We shall therefore here content ourselves with these only which are now in the shops, and prescribed in regular practice.

L. D. *Opium colatum, vel extractum Thebaicum.* Purified Opium, or the Thebaic Extract.

Take of opium, cut into slices, one pound, dissolve it to the consistence of a pulp in boiling water, great caution being used to prevent its burning to the vessel; while it is yet of a boiling heat, let the foulness be separated by forcibly pressing it through a linen cloth: afterwards let the opium thus strained be reduced to its former consistence in balneo, or by any other gentle heat. Opium thus moistened with only a little water, passes through the strainer entire; but if dissolved in a greater quantity, the resinous part will be separated from the gumous.

L. D. *Tinctura Thebaica.* Thebaic Tincture; commonly called Sydenham's Laudanum.

Take of purified opium two ounces, cinnamon and cloves, each 1 drachm, mountain wine 1 pint; infuse them a week without heat, and then filter through paper.

This preparation was introduced by Sydenham, and generally bears his name, but is by no means an instance of that simplicity in practice for which he has been esteemed; the addition of the spices seeming to be made on no other principle but the fondness for multiplying ingredients. The intention of this, and of all the several

preparations under the name of Laudanum, is to convey opium in a proper vehicle, and under such form, that the required quantity of it may be ascertained in prescriptions. That this particular preparation can have no intention, but what depends on the opium alone, is evident from the exceeding small quantity of the spices, which is, were they taken in specie, not half a grain to 20 drops; a quantity too minute to flatter even the most credulous, who reflect on it with any expectation of the slightest efficacy. But the mixture of insignificant quantities of spices, or of other irrelative ingredients, with the opium in laudanum, are not only needless, but really injurious, since they conduce to perplex the preparation, and render the proportion of opium in the composition less easy to be adjusted: which, though not perhaps attended with all the danger that has been represented from an excess in the dose, may, where there happens to prove a deficiency in the supposed quantity (which, if real, would be but just adequate to the intended effect) be the negative cause of very hazardous consequences.

E. D. *Tinctura Meconii.*

Tincture of Meconium.

Take of opium two drams, simple Jamaica pepper-water, 20 ounces by weight, rectified spirit of wine, the weight of 10 ounces. When the opium is wholly softened with the water, add the spirit, then digest 8 days, and filter thro' paper.

Dr. Goddard's Compound Extract of Opium.

Take of saffron and nutmegs,
sliced

sliced thin, ana 1 ounce, of castor half an ounce: put them into a matrafs with tincture of tartar 12 ounces: set all in a gentle heat of sand, (with the mouth of the matrafs well stopp'd) in digestion twenty-four hours, shaking it often; then let it cool, and press it through a cloth into a clean earthen pan: what stays in the bag put into the matrafs again; and add to it rectified spirit of wine half a pound: let it stand warm for 12 hours, and strain it off to the other: into these tinctures put of the extract of opium five ounces, and set them over a gentle fire to thicken into an extract.

This has the virtues of the former: but may be ventured upon in a somewhat larger dose, so far as to 3 or 4 grains.

Laudaum Liquidum Sydenhamii.

Dr. Sydenham's Liquid Laudanum.

Take of select opium 2 ounces, saffron 1 ounce, cinnamon and cloves powdered, ana 1 drachm; put them into a matrafs, and pour upon them of good canary wine 1 pound; let the matrafs be fitted for circulation; and set them in a good heat of digestion for three or four days: then press the liquor through a flannel; let it settle, and by gentle inclination pour it into a clean phial, and keep it for use.

Its dose and virtues are the same with those above.

In this preparation, the canary will bear a stronger heat of digestion than the spirit of wine or tincture of tartar; because there is not spirit enough in the wine to extract the resinous part of the opium without it. If after three

or four days digestion with the other ingredients, it be pressed out, let it settle, and pour it off by gentle inclination; putting to it an ounce or 6 drachms of the extract of opium, it will be a better medicine.

Gutta Vitæ. Drops of Life.

Dissolve 4 ounces of the best opium in water (as in the former process), then take of English saffron 1 ounce, of Russia castor 1 ounce and a half, cochineal and Virginia snake-root, ana half an ounce; nutmegs and zedoary, ana 2 ounces; of camphor 1 ounce. Powder these ingredients, and put them into a matrafs; pour upon them tincture of antimony (made with salt-petre and *antimonium diaphoreticum*) 1 pound: let them stand three or four days in a gentle heat, shaking the matrafs often, till a good tincture is produced; which put to one quart of the dissolution of opium: then let all stand in digestion 48 hours, and when settled, decant for use.

This is the medicine which Salmon made so much noise with. It is an excellent medicine in proper hands; and one of the best preparations of this kind; though it is not enough known to be much met with in prescription. The opium is so well guarded with cordial aromatics, that it may be ventured upon in very considerable doses; and there is no fear of nausea afterwards at the stomach. It promotes sweat very much; and is wonderfully carminative. A patient may take from 10 to 40, 50, or 60 drops.

Pil. Matthæi. Matthews's Pill.

Take of the extract of opium, black hellebore, liquorice, and the soap

soap of tartar (described under the preparations of tartar) ana 4 ounces. Let the hellebore and liquorice be made into a subtil powder; beat and mix these four ingredients very well; then with 2 or 3 ounces of this mass, mix an ounce of English saffron cut into small pieces; and beat them well together, till the saffron is perfectly incorporated with the mass, so that no part of it be discernible from the rest. Then beat and mix that with the rest of the mass as well. If this mass be too dry, you may mix it with some of the oil which comes from the soap, which it spues out when it stands a long time by; or in its stead, so much rectified oil of turpentine as is sufficient to make a mass fit to form into pills. Then put it into a wide-mouthed glass, or galley-pot, tied over with a bladder or leather.

There are many ways of making this medicine: Bates puts in white hellebore; but how much soever it may be imagined to stand corrected here, it is much safer left out; and the medicine will be still left efficacious enough to all the intentions it is ordered for. The saffron, in this, is not ordered by Bates; but much mends the medicine in many cases. It is an admirable and safe opiate, and promotes the discharges both by sweat and urine; and the soap of tartar is so aperient, that it makes it safe even in asthma, when no other preparations of opium dare be ventured upon. It may be given from 3 to 10 grains. When it grows dry with keeping, it must be again moistened with fresh oil of turpentine: but the oftener it has had those amendments, its dose may be enlarged;

for the turpentine will dry away so much, as not to leave enough behind to give some augmentation to its bulk.

Pilulæ Starkei. Dr. Starkey's Pills.

Take extract of opium 4 ounces, nutmegs and mineral bezoar, ana 2 ounces; saffron and Virginia snake-root, ana 1 ounce; beat the nutmegs and saffron together into a paste; so that they cannot be distinguished from one another. Let also the mineral bezoar and snake-root be in impalpable powder. Then mix all together with half a pound of the soap of tartar, of oil of saffras half an ounce, and 2 ounces of tincture of antimony: let them be all well incorporated, by beating in a mortar: then keep them in a glass, or galley-pot, tied over with a bladder, and leather, for use.

This Mr. George Wilson says, he had from Dr. Starkey's own mouth, in the year 1665, a little before his death; who then told him, he gave Matthews the former for a little money: but that this was what he successfully made use of himself. It is both more diaphoretic and more anodyne than the former; and they who have made use of it in their practice, affirm it to be the best laudanum that they ever met with. And yet this is not the sort which is kept in the shops; and it is not by much in so constant prescription as the former. Indeed there are hardly any of the shops that prepare this; so that a physician may write for it in vain; while the other is so ready for a succedaneum. This may be given in a good handsome dose, when rest is wanting in fevers; and is not so hazardous

hazardous in its effects as common opium, or any other of its preparations; the alexipharms likewise, in its composition, cause it sooner to raise a sweat; because at the same time that they warm and attenuate the fluids for secretion, the opium relaxes the fibres, and makes more way for their passage through the cutaneous pores.

Laudanum Londinense.

London Laudanum.

Take extract of opium made with spirit of wine, 1 ounce; extract of saffron 1 drachm and half; castor 1 drachm; let them be made up into a mass with tincture of the species diambrae half an ounce, made with spirit of wine: add ambergris and musk, ana 6 grains; oil of nutmegs 10 drops; and then with a gentle heat evaporate to a due consistence.

This is endued with the virtues of the former preparation. It may be given from 1 to 4 grains, either in a pill, or dissolved in a draught. Many prefer this to any liquid form; because the dose cannot so exactly be determined by so many drops, as by so much weight: for drops may contain more or less, according to the shape of the phial they are dropt out of, and the slowness of their dropping; besides the uncertainty of a menstruum sustaining just such a quantity of opium. This medicine is very apt to grow too dry in the shops, and also mouldy; both which may be prevented by a very small portion of salt of tartar in its composition, and proportioning the dose so much larger accordingly.

Preparations of Scammony.

There are various ways which

authors have contrived to prepare scammony, and all with a view to make it a milder and safer cathartic. Most agree in doing this with acids; to which purpose some bake, or roast it, inclosed in the fruit of a quince, and then it is called *Diagrydium*; others wash it with the juices of lemons, citrons, and with distilled vinegar; but after all it is best to give it in the state that nature has given it us.

Scammonium cum Sulphure preparatum. Scammony prepared with Sulphur.

Lay the powder of scammony upon thick strong paper; then hold it over coals, upon which sulphur is to be burnt, until the scammony turns white, and melts. Afterwards rub it in a mortar a little greased, to a fine powder for use.

This is prescribed from 3 to 8, or ten grains; and has the virtues of the scammony itself, being little altered by this preparation.

Resina Scammonii. Resin of Scammony.

Take any quantity of scammony, and dissolve it in a sufficient quantity of spirit of wine: decant the liquor, and put it to common water, which will occasion it to turn milky, and let the resin fall to the bottom; or put it into a retort, and gently draw off the spirit, as directed in making the resin of jalap; from which it differs very little, but is somewhat stronger and rougher in operation. Its dose is from 2 to 6 or 7 grains.

Spiritus Cochleariae.

Spirit of Scurvy-grass.

Take of scurvy-grass, fresh gathered,

thered, and bruised, 10 pounds; rectified spirit of wine 5 pints; infuse them 12 hours, and then distil off 5 pints of spirit, in balneo.

This spirit is strong of scurvy-grass, and useful in those cases in which the herb is proper; the dose from 20 to 100 drops. The virtues of scurvy-grass reside in a subtle volatile oil, which rises in distillation both with water and pure spirit; if the liquors are exposed to the air, it soon exhales from both. In the closest vessels, it loses remarkably of its pungency by long keeping. Horse-radish is often used instead of scurvy-grass, for making this spirit with, and so alike are their flavours, that the difference is not easily distinguished.

Spiritus Cochleariæ Aureus.

Golden Spirit of Scurvy-grass.

Take of the foregoing spirit one pound, and dissolve in it resin of jalap, scammony, or gamboge, one ounce. If there be any sediment, decant the tinged spirit carefully from it.

This is kept up in high esteem amongst the common people, by the great pretensions of several venders of it; but it is an indifferent and useless medicine; unless in athletic constitutions; and is very unfit to answer the expectations its name raises. Its dose is from 20 to 60 drops.

Flores Sulphuris.

Flowers of Sulphur.

Take any quantity of sulphur grossly powdered; put it into a glass body, which place in a small open fire, and cover it with a pot, or another cucurbit turned upside down; so that the neck of the one may enter into the neck of the other. Change the upper cu-

curbit every half hour, sitting another in its place; add likewise new sulphur. Gather the flowers which stick in the cucurbit, and continue to do so, until there is as much as desired.

The great consumption of this, and the lowness of the price it is got down to, make it necessary for those who would find a profit in it, to build a furnace with brick, big enough to sublime an hundred weight of sulphur at a time; and a few that have put themselves to such expence, serve the rest of the business. This process is sufficient to let us into the nature of these flowers as a medicine; and to inform us, that they are the finest part of the brimstone; though with these there arises a great deal of salt, as some farther processes will discover. Pure sulphur loosens the belly, and promotes insensible perspiration. That it readily passes through the skin, is perceived by the smell of persons who have taken it inwardly. In some instances of coughs, &c. it is found useful; particularly where the blood is affected by scorbutic humours; in which case it affords relief by throwing out a plentiful eruption on the skin. In cutaneous diseases it hath long been celebrated; and whether used externally or internally its effects are nearly similar: in both cases the eruptions become frequently more copious after the first use of it.

L. D. *Flores Sulphuris.*

Flowers of Sulphur.

The same as the preceding; but the flowers are directed after the sublimation to be powdered in a wooden mill, or in a marble mortar, with a wooden pestle.

L. D. *Flores Sulphuris loti.*

Washed Flowers of Sulphur.

Pour water on the flowers till it rises to the height of three or four fingers above them, and boil them some time; then pour off this water, and with renewed quantities of cold water, wash away the remainder of the first, and then dry the flowers for use. In subliming the flowers of sulphur the air is not always completely excluded, and some of those which arise the first are apt to take fire, and thus become an acid vapour, which mixing with the flowers which afterwards are sublimed, communicates to them a degree of acidity, which requires this operation; otherwise the flowers are apt to gripe the bowels, and occasion much uneasiness there.

Flores Sulphuris albi.

White Flowers of Sulphur.

Take of salt-petre, fixed with charcoal, four ounces, or half a pound; of clean mineral sulphur twice its quantity; grind and mix them well together; then put them into a retort, and set it in a sand-furnace; fit to it a receiver, but lute it not; make a gentle fire, which gradually increase to the third degree, and so keep it till all the flowers rise: which may be known by the upper part of the retort above the sand being clear.

The use of these is the same as the former; and they may be given from 1 scruple to 2 drachms.

L. D. *Sulphur præcipitatum.*Commonly called *Lac Sulphuris.*

Boil flowers of sulphur with twice their weight of quick-lime, till the sulphur is dissolved; filter the solution through paper; make

a precipitation with weak spirit of vitriol, which is to be made perfectly insipid by frequent washings.

Hepar Sulphuris.

Liver of Sulphur.

Take of flowers of sulphur 3 ounces, melt them in an earthen dish under a chimney; add by degrees an ounce and half of salt of tartar, constantly stirring it till the mass has acquired a red colour; care being taken that they do not catch fire.

Lac Sulphuris.

Take of liver of sulphur powdered, any quantity, spring-water four times as much; boil them three hours, supplying more water, if there be occasion; then filter the solution, while hot, and drop spirit of vitriol into it as long as any effervescence appears: a powder will be precipitated, which is to be washed with water, and afterwards dried for use. The method of preparing this article with *Hepar Sulphuris* is the most expeditious and least troublesome, provided that the hepar be well made; but quick-lime gives it a more saleable whiteness. The medicine would be the same, if any other acid was used; the vitriolic acid forms with the lime a selenitic concrete, which precipitates with the sulphur, and is not afterwards separable by any ablution; whilst the neutral salt, which the acid forms with the fixt alkali of hepar, may be totally dissolved, and washed off by repeated ablutions in hot water. The combinations of the other acids, as distilled vinegar, &c. both with the lime and the alkali, are separated by cold water. Pure lac sulphuris

ris is not different in quality from pure sulphur itself.

Balsamum Sulphuris cum Oleo Olivæ. Balsam of Sulphur with Oil of Olives.

Take of the flowers of sulphur 4 ounces, salad-oil 1 pound; put them in a pipkin which will contain about three times their quantity; set them over a fire, and make the matter to boil gently, when it is quite cool, put it up for use.

The balsams of sulphur are most commodiously made in a tall glass body, with a mouth about an inch or more in diameter; for when the sulphur and oil begin to act vehemently upon each other, they not only rarify into a large volume, but likewise throw out impetuously great quantities of an elastic vapour, which, if the vessels are closed, will burst them. In a vessel of this kind the process will be finished in about 4 or 5 hours; the fire at first, and for some time being gently, and afterwards gradually increased, so as to make the oil just bubble or boil, in which state it may be continued until all the sulphur appears to be taken up.

This is commended in coughs, asthma, and consumption, and is used externally to heal ulcers; but it is not often made. Its dose is from 10 to 40 drops.

L. D. *Balsamum Sulphuris simplex.*
Balsam of Sulphur:

The same as the preceding, only the vessel is directed to be slightly covered, instead of being stirred. In the same manner is made a balsam of sulphur of Barbadoes

Balsamum Sulphuris Terebinthinatum. Balsam of Sulphur with Oil of Turpentine.

Take flowers of sulphur 4 ounces, oil of turpentine 1 pound; put them into a matrass loosely stoppered with another glass, set it in a sand-heat, give a small fire for one hour, then increase it till the oil boils gently, in which degree keep it three or four hours; then let it cool, and pour off the impregnated oil from that which is not dissolved.

This is an excellent medicine for all diseases of the breast, and likewise for ulcerations and obstructions of the urinary passages; but it is nauseous to take at first, because of an empyreuma, which wears off with long keeping. Its dose is from 6 to 15 or 20 drops, upon fine powdered sugar, which is the best way to take it, because it will not well mix with liquors. After the same manner is a balsam made with any other oils, as of aniseed (which is much used in the same dose), or any other the physician may direct: but care must always be taken lest it boil over, because it immediately takes fire, and burns so fiercely as to endanger the house. The vessel ought therefore to be large enough to be two thirds at least empty, to give it room to rise without running over.

Balsamum Sulphuris Terebinthinatum. Terebinthinate Balsam of Sulphur.

Take of flowers of sulphur 2 ounces, oil of turpentine 10 ounces, digest them in a sand heat, till the oil is saturated with the sulphur.

Balsamum Sulphuris cum Oleo Lini.

Balsam of Sulphur with Linseed Oil.

Put 4 pounds of linseed oil into a glazed earthen body; set it in a sand-heat till it boils gently; then add 1 pound of flowers of sulphur; stir it till it swells and subsides; then remove it from the fire. Linseed oil dissolves the sulphur more readily than the olive oil. The vessels in which these balsams are boiled in, should be capable of holding three times the quantity of the ingredients, because, when the oil begins to act upon the sulphur, which is at near boiling, it rarifies suddenly and considerably; at this time carefully remove it from the fire.

The use and dose of this is the same as of the other balsams of sulphur; but this is the most grateful of any of them.

E. D. Balsamum Sulphuris crassum.

Thick Balsam of Sulphur.

Take of olive oil 1 pint, flowers of sulphur two ounces; boil them together over a gentle fire, continually stirring them, till they are of the consistence of a balsam.

Balsamum Sulphuris Anisatum.

Balsam of Sulphur with Oil of Aniseed.

Take 2 ounces of flowers of sulphur, 6 ounces of turpentine, and four ounces of oil of aniseed: digest as above.

Balsamum Sulphuris Succinatum.

Balsam of Sulphur with Oil of Amber, &c.

These are prepared with the several distilled oils in the same manner as the balsam with oil of turpentine.

The essential oils employed in these processes undergo a great alteration from the degree of heat, necessary for enabling them to dissolve the sulphur; and hence the balsams have not near so much of their flavour as might be expected. It should therefore seem more eligible to add a proper quantity of the essential oil to the simple balsam: these readily incorporate by a gentle warmth, if the vessel be now and then shaken. Sixteen parts of essential oil, and six of the *Balsamum Sulphuris simplex*, form a balsam more elegant than those made in the foregoing manner: and the balsams of sulphur have been strongly recommended in coughs, consumptions, and other disorders of the breasts and lungs. But the reputation which they have had in these cases do not appear to have been built upon any fair trial, or experience of their virtues. They are manifestly hot, acrimonious, and irritating; and therefore should be used with the utmost caution. They have frequently been found to injure the appetite, offend the stomach and viscera, parch the body, and occasion thirst, and febrile heats. The dose of the simple balsam is from ten to forty drops; those with essential oils are not given in above half these quantities. Externally, they are employed for cleansing and healing foul running ulcers; Boerhaave conjectures, that their use in these cases gave occasion to the virtues ascribed to them when taken internally.

Sanguis Sulphuris. Blood of Sulphur.

Grind of the liver of sulphur 4 ounces, and of oil of tartar, *per deliq.* 2 ounces, very well in a mortar together; put them into a matrafs,

matrass, and pour upon them of dulcified spirit of nitre 12 ounces. Shake the matrass, and let them digest, close stopp'd, seven or eight days: when cool, decant the liquor for use.

The dose of this is from 5 to 20 or 30 drops, mixed with syrup, or upon loaf-sugar powdered, drinking afterwards a draught of canary, or warm ale. It is an admirable pectoral, and is also diuretic. But they do not make it in the shops, and our physicians hardly ever prescribe it.

Tinctura Sulphuris.

Tincture of Sulphur.

Beat of the liver of sulphur (while it is warm) 4 ounces, in a warm mortar; put it presently into a matrass, add to it spirit of wine 1 pound; set them in digestion for 24 hours, and there will be a very red tincture; which keep in a phial well stopp'd for use.

This is good in all the intentions wherein the foregoing balsams are used; but is much pleasanter to take, because it will mix with any liquors: Canary wine is the best vehicle to give it in. Its dose is from 10 to 30 drops.

Tinctura Sulphuris Volatilis.

Volatile Tincture of Sulphur.

Take of flower of sulphur six ounces, sal ammoniac one pound, quick-lime a pound and a half. Sprinkle some water on the lime, and when quenched and fallen into powder, grind it first with the sulphur, and afterwards with the sal ammoniac, in small quantities at a time; then distil the mixture in a retort, with the fire gradually increased: the distilled liquor should be well kept in a close phial.

The vapour from this tincture, spreads to a considerable distance, and changes copper and silver to a brown or a black colour. If a piece of paper, written upon with a saturate solution of lead in vegetable acid, or dried, be placed in the middle of a quire of paper, or a pretty thick book, and brought near the unstopp'd orifice of the bottle containing this tincture, the vapour will quickly reach it, and change the colourless writing to a legible black.

Hoffman says that 10 drops of this tincture, with 30 drops of spirit of wine, is powerfully sudorific: and that a liquor composed of this and camphor, takes off the pain of the gout, by bathing the feet with it.

L. D. Oleum vel Spiritus Sulphuris per campanam. Oil or Spirit of Sulphur by the Bell.

Take any quantity of sulphur, put it into an earthen dish, placed upon an inverted crucible; set them both upon the bottom of a large earthen vessel, in a moist place, secured from the wind, then fire the sulphur with a red hot iron, and hang over it a glass bell, at such a distance as to be out of the reach of the flames; the vapour of the sulphur will condense in the bell, and flow down the sides like water into the vessel underneath.

This is a powerful acid, and its operation is chiefly diuretic; but it is more commonly prescribed to give a palatable acidity to some internal medicines, than to answer any intention by its proper virtues. Its greatest use is in other preparations. Its dose for palatableness is at pleasure, and as a diuretic, from 3 to 10 drops, in any proper vehicle.

It has been till lately disputed, whether there is any real difference between the oil of sulphur and the oil of vitriol; but it is now scarcely a doubt with any who are conversant with chemical experiments of a general nature, that the acid is the very same substance, though their being obtained from different bodies may occasion a variation of the proportion of the heterogeneous matter, which in some quantity necessarily arises with the oil in distillation from either subject. The doubt of their being similar has arose from this reason, that what has been sold under the name of spirit of sulphur has been more diluted than oil of vitriol, and consequently produced different appearances in the trials of its action on other bodies; as in the instance of the oil of sulphur's not exuding like the other the corks, which stop the bottles wherein it is kept, &c. That the acid of sulphur and vitriol are the same, is evident from the two following instances. 1st. The acid of sulphur, united with copper, or iron, forms true vitriol of copper, and of iron; 2d. The acid of vitriol combined with inflammable matters, produces sulphur, not distinguishable from pure common brimstone.

But, as nevertheless there remain persons to whom these reasons are not convincing; and who, supposing a superior medicinal virtue in spirit of sulphur, may be desirous of preparing it; I recommend in the place of the above given processes, which are extremely tedious, for the want of a greater quantity of surface in the condensing vessel, and its being so soon made hot from its contiguity to the burning sulphur, this following one.

Spiritus Sulphuris per campanam.

Take a large retort, with a tubulated receiver (with the pipe turned uppermost) adapted to its neck; in the side of this retort, cut a hole, and pour into its bottom an ounce or two of warm water, in the middle of which is placed a shallow stone cup, containing the sulphur. The heat of the burning sulphur is soon communicated to the water, so as to keep it continually rising in steam; with this aqueous vapour, the fumes of the sulphur are effectually blended as they ascend, and detained in considerable quantities, in a much less proportion of phlegm than when the common methods are pursued; for here the business of rectification or dephlegmation is carrying on, at the same time that the acid is collecting.

By the common method with the bell about two drams of acid is obtained from 16 ounces of sulphur; by this method, two ounces may be obtained. Stahl relates that 15 ounces of acid may be obtained from 16 ounces of sulphur, and of such strength as to require being diluted with above an equal quantity of water, to reduce it to the strength of the common spirits of sulphur.

Those who supply us with the vitriolic or sulphurous acid, instead of an open bell, or a retort, use for burning the sulphur in very large spherical glasses, blown of the size of a very large hoghead, or larger, with only one aperture, through which the sulphur is introduced, and which is afterwards immediately closed, till the fumes have subsided or incorporated with the vapour of the warm water, placed

placed in the lower part of the vessel.

Sal Sulphuris. Salt of Sulphur.

Take of *Sal Polycresum* (as prepared under the article of Nitre) 4 ounces, powder it in a glass mortar, with a pestle of the same; put it into a flat wide-mouthed glass, and add to it of the spirit of sulphur 2 ounces; stir them well together, and evaporate in a sand-heat; this will leave a pleasant acid salt, which put up in a phial for use.

This is not, strictly speaking, the salt of sulphur, but nitre, fixed by sulphur, and afterwards impregnated with its spirit. It is diuretic, and if given in a large dose, cathartic, as most salts are. In the former intention it is given from 10 grains to 1 drachm; in the latter up to 4 drachms, dissolved in broth, or any proper vehicle, warm.

Aqua Sulphurata.

Sulphurated Water.

Take of water a quart, of sulphur half a pound: let some portion of the sulphur, set on fire in an iron ladle, be suspended over the water in a close vessel; and let this be repeated as often as the fumes from the last sulphur subside till the whole is burnt away.

Van Helmont called this medicine *Gas Sulphuris*.

The burning sulphur may very commodiously be suspended over the water by putting the water into a glass receiver so large as to contain it conveniently with the mouth laid side-ways, the ladle holding the burning sulphur being fixed to a wooden plug made to go freely into the neck of the receiver, which should be pretty long; this

plug will then keep the ladle up horizontal, that it shall not dip into the water; and a cloth slightly thrown round the mouth of the receiver will sufficiently confine the fumes of the burning sulphur.

The water in this process is impregnated with a subtile volatile acid, differing in many respects from the spirit of sulphur or volatile acid. This volatile acid hath a pungent suffocating-smell, like that of the fumes of burning brimstone, but discovers to the taste very little acidity or corrosiveness. Exposed for some time to the air, it loses those properties, and becomes a fixed acid, and corrosive like the common oil of vitriol.

Half an ounce two or three times a day, is recommended in spasmodic asthmas, to be taken in any convenient vehicle: but this preparation is liable to great uncertainty in point of strength.

Spiritus Sacchari ardens.

A burning Spirit of Sugar.

Take of coarse sugar, or melasses, any quantity at pleasure, in proportion to the still; put to it ten or twelve times its weight of water, and let them stand a sufficient time to ferment: as soon as the fermentation is over put the liquor into a copper still with its refrigeratory, and give it gradual fire till it begins to drop. Observe so to manage the fire, that the spirit come from the mouth of the worm in a small thread, and so continue till it runs insipid; then let out the fire, and rectify the spirit by a second distillation, either in a glass body or head; or if the quantity be great, in a copper vessel; observing to separate the spirit from the phlegm, as in the first distillation; which may

be farther rectified till it will burn all away, and then it is called alcohol.

This is of the same use as the spirit of wine: and is much preferable to our malt spirits, both for softness and flavour; and is exceeded by none but that of the grape.

Oleum Camphoræ.

Put into a glass retort well coated, 2 ounces of camphor grossly pulverised; pour upon it 8 ounces of the ethereal oil of turpentine; place the beak of the retort upwards in digestion upon hot sand; stop the same, and let it remain there twenty-four hours; and shake it now and then till all the camphor is dissolved in the liquor: then place the retort for distillation upon sand; open it, and adapt thereto a recipient; and lute the joint exactly; afterwards, by a moderate and gradual fire, distil the liquor till nothing more comes over: keep this liquor in a bottle well stoppt, and you will have an oil of camphor, which will appear muddy, of a whitish colour, inclining to yellow, of a more fetid odour and taste than those of turpentine oils. It will weigh six ounces, and nothing remain in the retort.

This is very deterfivè, penetrating, and resolutivè, both inwardly and externally used: and will reach to ulcerations and foulnesses in the most remote and straitened canals, as in the lungs or urinary passages. In athritic pains, and those settled by old colds, as they are called, it cannot but be very efficacious; taken from 5 to 15 drops in any proper liquor, keeping the patient warm.

Acetum. Vinegar.

Vinegar is produced by suffering a small access of air to any vinous or fermented liquor, which is thereby so changed, that the inflammable spirit disappears, and an acid is generated. This change is much accelerated by the application of a gentle heat; whence, in liquors not too highly fermented, where the inflammable spirit is defective, it frequently happens in warm weather, notwithstanding the air be carefully excluded and all heat avoided as much as possible.

Common vinegar is prepared, by those who make it their proper business, from malt, rape, melasses, or such fermenting vegetables as can be bought at the lowest price; which is brewed and fermented, but not so highly as if designed for vinous liquors, or the distillation of vinous spirits, and then exposed in casks, having a small aperture for the admission of the air, to the heat of the sun; the stalks of raisins or grapes, taken out of some quantity before prepared, being added, by which the acetous fermentation is excited, as the vinous one is by yeast. A more elegant vinegar is, in lesser quantities, made from the acetification of various kinds of wines; but it is indifferent, in regard to its medicinal effects, of what matter the vinegar is made.

Wine vinegar is considerably more pure than that prepared from malt liquors; the latter however acid and fine, contains a large portion of a viscous mucilaginous substance; the stronger and more spirituous the wine, the better and stronger vinegar it yields.

The uses to which vinegar is applied in medicine are extremely various;

various; it is given in scurvies as an alterative; in fevers as an anti-inflammatory, in hæmorrhages as a coagulating styptic. It is sometimes employed to neutralise alkaline salts, as in the *Terra foliata Tartari*, and Mindererus's mixture; sometimes to dissolve metals, as in the *Sacch. Saturni*, verdigrise, &c. sometimes as the menstruum of an extract, as in the *Acetum Squillatum*; and frequently in plasters, liniments, and embrocations, where an anti-inflammatory or repellent intention is proposed. It is prepared likewise by distillation, and afterwards applied to some of the above, and other purposes.

Vinegar, as well distilled as crude, contains, besides its acid, a water, a considerable quantity of oil, and some tartarous salt. That the distilled vinegar is not free from this oil, is manifest from the coal produced in the fusing the *Terra foliata Tartari*; and the *caput mortuum* left after distillation, shews evidently how it abounds in the crude. To this oil it is most probably owing, that vinegar is a more general solvent, both of earths and metals, than any other acid.

There does not appear to be any medicinal quality in vinegar, distinct from those of other acids; only it is much gentler, and assimulating more with the animal substances, does not, like the others, force its excretion through the glands of the intestines, or the kidneys. In putrid cases, such as the muriatic scurvy or the slow military fever, where from rancid diet, or the suppression of the glandular secretions, the blood is colligated, from the exaltation of the oils, and the retention of the salts, vi-

negar is certainly a very apposite and efficacious remedy; as likewise in spontaneous hæmorrhages, arising from the same causes; but several eminent persons even of the present time, not confining its use to this intention, seem to have run into most extravagant errors concerning it. First, they have ranked it amongst the alexipharmic class, though it is obviously the common property of acids to check the motion of the blood and cool the habit. Secondly, they have considered it as a resolvent, by confounding that repellent power, which arises from its astringency, with the power of resolving; and even direct it to be given internally in the case of glandulous and pituitous tumours, whose very causes lie in the want of *vis vitæ*, and that lentor and poverty of blood, which are owing to its want of due alkalescence; and lastly, in hypochondriac and hysteric cases, where the obstruction and pravity of the bile, and the languid state of the intestines, occasion such an acescence in them, as gives rise to some of the most troublesome symptoms and consequences those disorders produce, which must therefore be greatly aggravated by the addition of fresh acid.

The dose of vinegar may be from half an ounce to three ounces; but a continuance of frequent large doses ought to be avoided; as it may otherways make a coagulation of the chyle in the lacteals and chyle-ducts; and thence produce an incurable atrophy; of which some instances have been known, in the case of women who have taken large quantities, with a view to a slender shape.

L. D. Acetum distillatum, vel Spiritus Aceti. Distilled Vinegar.

Let vinegar be distilled with a gentle heat, as long as it will rise without any empyreumatic smell.

If the spirit that first comes be removed, a stronger will be obtained afterwards.

It is not improper here to give a caution to apothecaries, &c. not to distil vinegar in any kind of alembick made of metal, as I have known to be very injudiciously done: for a solution of the metal will be necessarily made in the worm or condenser; from whence, particularly if it be made of lead, or pewter (in the composition of which lead is generally used,) there may be great hazard; as the vinegar may be thereby greatly charged with sugar of lead, whose known ill effects internally taken I need not mention.

Wine vinegar should be used; the vinegar made of malt liquors, contain much gluten, which detains the acid, subjects the vinegar to boil over into the receiver, also disposes it to receive an empyreuma from the fire. To prevent the empyreuma, if a retort is used, place the sand a little way up the sides, and when little more than half the liquor is come down, pour in the remainder a quantity of fresh vinegar, equal to that of the liquor drawn off; this may be repeated three or four times; the vinegar supplied at each time, being previously made hot.

E. D. Acetum distillatum, seu Spiritus Aceti.

Distilled Vinegar, or the Spirit of Vinegar.

In a glass vessel, on a gentle fire, distil a gallon of vinegar. The

first two pints being too watery, must be set aside; the next four pints are to be kept as distilled vinegar. The residuum is the strongest acid, but being too much affected by the fire, must be kept for other uses.

Spiritus Aceti. Spirit of Vinegar.

Put distilled vinegar upon filings of copper, or to that scoria of copper, which the brasiers call spill or spittle dust; and make it into a paste: let it stand some time without heat, to penetrate the copper; evaporate over a very gentle fire, till the fumes of the vinegar can be smelt: then take it presently away, imbibe again, and evaporate as before; do this so often, that an eager scent may be perceived at the beginning of the evaporation; which shews that the copper is well satiated with the distilled vinegar; put this satiated calx into a retort; place it in a sand-furnace; fit it to a receiver, and lute well the joint with a wet bladder; give it the first degree of fire for two hours; then increase it to the second, for two or three hours more; and so to the third, for three hours longer; at last, give it the fourth degree for two hours more; then let all cool, and in the receiver there will be a spirit of vinegar, of which the more phlegmy part may still be separated by rectification.

This is much more penetrating than the former, and will perform any operation with more force, and in much less quantity; but it is seldom made.

A very commodious way of obtaining a strong spirit of vinegar, is by freezing common distilled vinegar, to take out the more phlegmy part.

Acetum

Actum Colchicum. Vinegar of Meadow Saffron.

Take fresh roots of meadow saffron, thin sliced, one ounce, digest in a glass vessel, with a gentle heat, in one pint of white wine vinegar for two days, often shaking the bottle.

This vinegar is thought to be rather too acrid for internal use, and is, therefore, best made into an oxymel.

Acetum Rosatum. Vinegar of Roses.

Take of red rose buds dried, with the white cut off, as for making the conserve, 1 pound, and infuse them in 12 pounds of the best white wine vinegar, for 40 or 50 days; then press out the roses, and keep the vinegar for use.

This is seldom prescribed, but to embrocate the head and temples in some kinds of the head ach; in which it frequently does great service. After the same manner is made *Acetum Sambucinum*, *Anthosatum*, &c. vinegar of elder, rosemary, and the like, by an infusion of the flowers. The uses of these vinegars are manifest, from the virtues of the ingredients already described.

Acetum Rosaceum.

Vinegar of Roses.

Take of red roses dried 1 pound, the strongest vinegar 1 gallon, expose them to the sun in a close vessel 40 days, and then strain off the fluid.

In the same manner are prepared,

Acetum Rutaceum

Vinegar of Rue.

Acetum Sambucinum.

Vinegar of Elder.

Acetum Rutaceum. Vinegar of Rue.

Infuse the leaves of rue and scordium, that is, water germander, picked from the thick stalks, ana 2 handfuls; juniper berries and angelica roots. ana 2 ounces; zedoary, and Seville orange peel, ana 1 ounce, in eight pounds of the best vinegar. Let them digest for a month; then press the vinegar from the ingredients, and keep it for use,

This is not prescribed, or kept in the shops, but is so easily made by any private family, and is so good a medicine to procure sweat upon any threatnings of a fever, or upon a surfeit, that is very well worth any one's making, and keeping in readiness. It may be given from half a spoonful to two or three spoonfuls, in any convenient warm liquor. And if the patient is kept warm with clothes, it cannot fail of raising a sweat; and it is the best succadaneum to treacle-water.

L. D. *Acetum Scilliticum*

Vinegar with Squills.

Take of dried squills 1 pound, vinegar 6 pints; infuse the squills in the vinegar in a slow heat; then strain off the fluid, and place it to settle; lastly, to the depurated vinegar add about a twelfth part of proof spirit, that it may be the longer preserved clear.

This is a very powerful stimulant aperient, and attenuator of tenacious juices; and hence is frequently used with good success, in disorders of the breast occasioned by a load of thick viscid phlegm, for promoting urine in hydropic cases, &c. The dose of this medicine is from a dram to half an ounce: where crudities abound in
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the first passages, it may be given at first in a larger dose, to evacuate them by vomit. It is most conveniently exhibited along with cinnamon, or other agreeable aromatic waters, which prevent the nausea it would otherwise, even in small doses, be apt to occasion:

E. D. Acetum Scilliticum.

Vinegar with Squills.

Take dried squills, cut them into thin slices 4 ounces, distilled vinegar 2 pints; proof spirit of wine two ounces.

Macerate the squills with vinegar, eight days, then add the spirit, when the faeces have subsided, pour off the clear liquor.

According to this direction in the Edinburgh Dispensatory, it seems most convenient to add the spirit before the vinegar is decanted; for thus, the purification is accelerated and rendered more perfect; and the liquor prevented from growing mothery a second time, which it is apt to do upon the affusion of the spirit, however carefully it may have been depurated before.

Acetum Theriacale.

Treacle Vinegar.

Take of Edinburgh treacle one pound, the strongest vinegar two quarts, digest them in a very gentle heat three days, and then strain off the vinegar; this is greatly celebrated as a sudorific in acute and contagious diseases.

Acetum Lithargyrites.

Litharge Vinegar.

Take of the litharge of gold 4 ounces, the strongest vinegar one pint, digest them in a sand-heat four days, frequently shaking them, then filter off the fluid.

This preparation, though distinguished by a particular name, is in fact only a solution of sugar of lead; and intended only to be used externally as a cosmetic.

Distillation of Vipers.

Take any number of vipers, open and cleanse them from all worms and excrements, and the females from their eggs; take out their hearts and livers; dry them in the shade, separately from their bodies; and when they are dry, cut the bodies into small pieces, and therewith three quarters fill a coated retort: place it in a fit reverberatory; lute on a receiver, which must be large; cover the furnace with its dome, and make a gentle fire for two hours, in which time the greatest part of the phlegm will come over; then increase the fire to the second degree for two hours more, which will raise the spirit and volatile salt: increase it still to the third, which will fill the recipient with clouds; keep up that degree till the clouds lessen in the receiver: increase the fire still to the fourth degree; and keep it there till all be come over, and the receiver grows cool; then cease the fire, and there will be come over a phlegm, spirit, salt, and oil; which must be rectified.

Sal Viperarum Volatile.

Volatile Salt of Vipers.

Put all that is found in the receiver, upon the foregoing distillation, in a long-bodied uncut cucurbit; if more salt adheres to the receiver than the liquid which distilled from the vipers, will dissolve, put in a little water, and rince all the salt out into the body: place it in balneo, or a gentle heat
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of sand or ashes; lute on the head with a bladder spread with stiff starch, and dipt in the white of an egg. There may also be a small receiver luted on to the beak of the alembic, and the salt will sublime into the head, or upper part of the body, distinct from the phlegm and grosser part of the oil, which must be kept in a clean phial carefully stopd.

The volatile salts of vipers have been supposed capable of producing different effects in the body from those of hartshorn or other animal substances, but modern practice acknowledges no such different effects; and chemical experiments prove their identity; these salts may vary, as they are more or less purified from the animal oil, but in no other respect. For their virtues, see *Sal Cornu Cervi*.

Essentia Viperarum. Essence of Vipers.

Take any number of dried vipers, cut them into small pieces, and put them into a cucurbit; place it conveniently, and pour into it (by little at a time) so much spirit of nitre as will dissolve the vipers; (commonly 12 ounces of spirit of nitre will dissolve 4 ounces of vipers.) When all the spirit is put upon them, let them stand five or six hours, and there will be a black scum upon the surface of the dissolution, which must be taken off with a glass spoon; or, in defect of that, a clean tobacco pipe. There will also be white fæces at the bottom, which must be separated from the clear dissolution. Pour the clear liquor into a retort; and by an ounce or two at a time, put to it thrice its

weight of tartarized spirit of wine, shaking them often; place the retort in a heat of ashes, and with a gentle fire distil off the spirit of wine, which will be an excellent dulcified spirit of nitre. To the black matter remaining at the bottom of the retort, put the same quantity of fresh spirit of wine tartarized, and draw it off as the other; put on again the same quantity as before, and distil it in the same manner; and repeat this so often with new spirit of wine, till it has neither any nitrous smell, nor acid taste; keep that which remains in the retort, to unite with the volatile salt, and rectified oil of vipers.

This process, greatly esteemed by some, is too elaborate and tedious for common practice, and therefore seldom performed; the common way of keeping them in canary, being as good.

Rectification of the Oil of Vipers.

Put the oil and phlegm, from which the salt of vipers was sublimed, into a cucurbit; let the cucurbit be capable of holding two gallons; pour to them one gallon of clean water; set it in a sand-furnace, fit on a head and receiver; give a gradual fire till the matter within the cucurbit bubbles; continue the fire so, till, holding a spoon under the beak of the head, there is very little or no oil perceivable upon the water which drops into the spoon. Then let all cool, and there will be a water, and the etherial oil of vipers in the receiver.

This water is sudorific, and has all the virtues of the volatile salt; but in a much lower degree. The oil is reckoned a specific in venomous bites, especially of the viper itself; and is also commended for all

all the same inward uses as the salt; from one to five drops in a glass of canary.

The union of the volatile Salt, and the ethereal Oil of Vipers, into an Essence.

To 4 ounces of the dissolved body of the vipers left in the retort, put 1 ounce of *Tinctura Regalis* (described amongst the preparations of antimony) by a drachm at a time: then to 2 ounces of the salt, and half an ounce of the ethereal oil, add 1 pound of the same *Tinctura regalis*; put them into a matras, which make a circulatory; and let them stand 10 days in the sun (or an equivalent heat) shaking them every day. When the tincture has imbibed all the salt and oil, take it out, and put it to the dissolution of vipers above mentioned; and when, by a strong agitation, the dissolution is loosened from the retort, put it all into a matras; and let it circulate in a gentle heat 10 days, shaking it every day: in this time all the several substances will be incorporated into an essence; which pour off from the fæces into a clean phial and keep carefully stopt for use.

This essence is endued with all the virtues of the volatile salt; and if possible, exceeds it. Its dose is from 20 to 100 drops, in any convenient liquor. The ounce of *Tinctura Regalis*, put to the dissolved vipers, is to satiate that acidity still remaining in them, which otherwise might too much fix the salt of the vipers, and reduce it to the nature of common *Sal Ammoniac*; which being again mixed with fixed alkalis, may be sublimed into an animal urinous salt, as it was before. The dissolution likewise may be dulcified, by putting to it, by a

little at a time, so much pure fixed nitre, as will satiate its acidity: then let it stand in a cold place, and it will shoot into a combustible salt-petre again; and the dissolution will be thereby freed from the corrosive spirit of nitre, which would have changed the volatile salt into that which some call the secret *Sal Ammoniac*.

L. D. Spiritus, Sal, & Oleum Cornu Cervi. Spirit, Salt, and Oil of Hartshorn.

Let pieces of hartshorn be distilled with a fire gradually augmented almost to the greatest degree; spirit, salt, and oil will arise. If, the oil being separated from them, the spirit and salt be mixed together again, and distilled with a very gentle heat, they will both rise purer; which operation being several times cautiously repeated, the salt will acquire a perfect whiteness, and the spirit become limpid as water, with a grateful smell. The salt being separated from the spirit, and sublimed, first with an equal weight of chalk, and afterwards with a little rectified spirit of wine, will be made pure sooner than by the former method; calcined hartshorn is most frequently made of the horn, after this distillation. In the same manner, spirit, salt, and oil, may be obtained from any of the proper parts of all animals.

It seems here insinuated, that an extreme great purity of the salt and spirit of hartshorn from the oil is necessary; and so Dr. P—— has more fully declared, in his notes on this passage. But certainly there are limits to that; the intent of this preparation being to obtain a volatile salt, combined with some of the most ethereal oil afforded

afforded by animal substances distilled; for otherwise, if only a pure volatile salt was to be procured, the volatile salt of *Sal Ammoniac* might be substituted for this, being in all other respects the same. It, therefore, the salt and spirit of hartshorn differ only from the other in being replete with ethereal animal oil, a proportion of it must of course be essentially necessary; and the depriving them of that, is destroying the species of the medicine, and procuring, by a very laborious and expensive method, one which is already at hand.

L. D. *Cornu Cervi Calcinationo.*

Calcination of Hartshorn.

Let pieces of hartshorn be burnt in a potter's furnace, till they are perfectly white: and let them be powdered by the method directed for other earthy bodies.

The calcining in a potter's furnace, is directed not as necessary, but expedient; for if they are burnt in any kind of fire till they are white, and fit to be powdered, they will answer the end. What is used at present, is mostly prepared by persons who make it their business to saw the horns into pieces, and sell them to be distilled by the chemists and apothecaries, of whom they take back the coal after the distillation, and calcine it.

Spiritus, Sal, & Oleum Cornu Cervi. Spirit, Salt, and Oil of Hartshorn.

Take of hartshorn, cut into pieces, any quantity, fill an earthen or coated glass retort with them up to the neck, place it in an open fire; and having fitted on a very capacious receiver, distil them with a gradual heat; at

first phlegm, then spirit, and afterwards an oily salt of a yellow colour will rise; and, at last a blackish red oil, together with more salt; a black earthy coal remains at the bottom of the distilling vessel, which being burnt in an open fire, till it becomes white, is then called calcined hartshorn.

Having poured out of the receiver all the several substances which have come over, they may be separated from each other in the following manner: the oil may be separated from the phlegm by filtering; the two last will pass through, while that remains in the filter. The phlegm may be separated from the spirit, by distilling them in a tall vessel, with a gentle fire; the spirit will come over into the receiver, and the phlegm stay at the bottom of the retort, or distilling vessel. The spirit may be divided into a volatile salt and phlegm, by distilling it in a very tall and narrow cucurbit, or body; the salt will rise to the head in a solid form, the phlegm remaining at the bottom. The salt may be purified from the oil by subliming it, from six times its quantity of chalk, or calcined bones; for the oil is detained by those substances, while the salt sublimed to the top of the vessel.

A spirit, salt, and oil, may be distilled in the same manner from all the solid parts of animals, and from blood exsiccated by a very gentle heat, as likewise from urine, first evaporated to the consistence of honey, and putrified, or even from fresh urine, exsiccated and mixed with four times its quantity of sand, or an equal quantity of any fixt alkaline salt. Urine, distilled
with

with the addition of quick-lime, yields an exceeding pungent spirit.

The spirit of hartshorn met with in the shops is extremely precarious in point of strength; the quantity of salt contained in it (on which its efficacy depends) varying according as the distillation, in rectifying it, is continued for a longer or shorter time; it should contain as much salt as the phlegm is capable of dissolving.

Volatile salts and spirits, in general, are in taste and sinell extremely pungent and acrimonious: applied to the skin, and prevented from exhaling, they inflame the part, and produce the effect of caustics. With regard to their medical virtues, they stimulate the nervous system, attenuate viscid humours, promote a diaphoresis and other natural secretions, and absorb acidities in the *primæ viæ*. They are particularly useful in lethargic and apoplectic cases; in hypochondriacal and hysterical disorders, and the languors, head-achs, inflations of the stomach, flatulent colics, and other symptoms which attend them. They are generally found more serviceable to aged persons, and in phlegmatic habits, than in the opposite circumstances. In febrile and inflammatory distempers, they are hurtful; those kinds of fevers excepted which are accompanied with a cough, hoarseness, and a redundancy of phlegm.

The dose is from 3 to 12 or 20 grains. But there are great errors committed in the common practice in its prescription. by putting it either into forms which it will destroy, or where it will lose its volatility before it gets to the patient. In pills it will not lie, no more than any other volatiles; but will rarify them into ten

times their proper bulk. Boles also it will puff up in like manner, and soon make its escape; and in powders, wherein it is often ordered, it soon becomes no better than a calx, or so much powder of lime. There is, therefore, no form to preserve its virtues in, but by dissolving it with some proper vehicle into draughts; unless the apothecary attends with his store-bottle, and waits at the bedside to distribute every dose as it is to be taken.

L. D. *Spiritus, Sal, & Oleum Fuliginis.*

Spirit, Salt, and Oil of Soot.

Distil the soot of wood in the same manner as hartshorn; but much more trouble is required to bring the spirit and salt to purify. The salt and spirit of soot, duly purified do not differ from those of animal substances.

Oleum Cerae.

Oil of Wax.

Take any quantity of wax, melt it with twice as much sand; put the mixture into a retort, and distil it in a sand heat; at first an acid spirit rises, and afterwards a thick oil, which adheres to the neck of the retort, unless it be warmed by applying a burning coal: this may be rectified into a thin oil, by distilling it several times without mixture in a sand-heat. Boerhaave recommends this against roughness and chaps in the skin, but its disagreeable smell makes it but little used. He also advises in preparing this oil, to cut the wax in pieces, and put it into the retort first, so as to fill one half of it; when as much sand may be poured thereon, as will fill the remaining half.

Spiritus

Spiritus Vini tartarizatus.

Tartarized Spirit of Wine.

Take salt of tartar two or three times coagulated and dissolved, one pound: give it a strong fusion in a crucible for two hours; powder it in a warm mortar; and, whilst warm, put it into a matrafs, to four pounds of the former rectified spirit of wine: shake them well together, and place them in a sand-furnace: lute the junctures of the head and receiver; give fire to such a degree as may make the drops succeed each other very quickly; and continue thus till all the spirit is come over.

This spirit volatilizes and carries over some part of the salt of tartar along with it; which is demonstrable by the salt sustaining the loss of at least 1 ounce of its weight. And by this operation, the spirit of wine obtains a more agreeable scent and taste than before; and is also more subtle and penetrating.

Spiritus Cornu Cervi Aromaticus.

Aromatic Spirit of Hartshorn.

Take the spirit, oil, and salt of hartshorn, after the first distillation, and rectify them: put them when rectified into a clean retort; to each pound put of *Sal volatile oleosum* 2 ounces, *Spiritus nitri dulcis* 4 ounces; shake them well together, and set them in a very gentle sand-heat; lute on a receiver, and continue the fire, not exceeding the second degree, till all be distilled; and in the receiver there will be a spirit clear of all empyreuma, and of a pleasant scent.

This is reckoned a powerful diuretic and diaphoretic; and to be endued with all the virtues attributed to Goddard's drops. Its dose is from 50 to 100 drops. If it be

once more rectified its scent will be yet much more agreable.

Sal Cornu Cervi Succinatum. Salt of Hartshorn with Amber.

This is made by subliming the genuine salt of hartshorn, with half the quantity of salt of amber. The virtues may be easily known from those of the ingredients, separate; which this medicine retains.

Spiritus Cornu Cervi Succinatus.

Spirit of Hartshorn with Amber.

This is made by putting in half as much amber as hartshorn; and then proceed as in the simple distillation.

The virtues and doses here are the same as the former plain spirit. The oil which comes over is not much used or known in prescription; but it is of great efficacy in arthritic and rheumatic pains, if embrocated upon the part affected; and there is hardly any one thing of greater force in such cases; especially if it be artfully managed with some lixivial salts, as in making the soap of tartar.

To elixirate, or make essential, any Animal Volatile Salts.

Take of any volatile animal salt half a pound; put the same weight of tartarized spirit of wine to it, and it will coagulate, and is that which Helmont calls his *Ossa Alba*: put this salt into a matrafs; pour upon it pure and strong distilled vinegar, by little and little at a time, till the ebullition ceases; then set it in a gentle heat of sand, with a head and receiver well luted: there will first come over a subtle liquor; dropping from the nose of the

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alembic;

alembic; after that will sublime into the head a most glorious salt, white as snow, in figure like large flowers of Benjamin; of a quick, pleasant, penetrating scent, and a very agreeable taste.

In this operation a watchful eye must be had, that as soon as the crystals are perceived to give in the head, the cucurbit must be drawn out of the sand, and the head and receiver taken off; put

the spirit and salt apart into phials well stoppt. This salt will unite with salt of tartar; and readily dissolve in spirit of wine. It is extremely penetrating; and a most effectual dissolvent of vegetable and animal substances; as well as a powerful diuretic and sudorific; and is therefore good in all chronic diseases. Its dose is from 10 to 50 or 70 drops, in any convenient vehicle.

B O O K II.

Of Saline Preparations.

SALT of any kind is purified by separating it from its more earthy part, and accidental dirt, by dissolution, filtration, and chrySTALLIZATION. Different salts require different quantities of water to keep them dissolved: and hence, if a mixture of two or more be dissolved in this fluid, they will begin to separate and chrySTALLIZE at different periods of the evaporation. Upon this foundation salts are freed, not only from their impurities, as water is not capable of dissolving and carrying through the pores of a filter, but likewise from admixtures of one another; that which requires the most water to dissolve in, shooting first into crystals. In decrepitating salt, put what quantity of common salt you please into a crucible, or any other earthen vessel, which will endure fire; give it such as will make it crackle, but not melt; continue it in that degree of fire, now and then stirring it with an iron hook, till it

cracks no more; and this may be done either before or after purification.

E. D. Spiritus Salis Marini.

Spirit of Sea-Salt.

Take 2 pounds of decrepitated salt, put it into a glass retort, pour upon it by degrees 1 pound of oil of vitriol, diluted with an equal quantity of warm water, but become cold again before it be added to the salt. Distil it in a sand-heat, gradually increasing the heat, until the iron pot becomes of a dusky red colour.

L. D. Spiritus Salis Marini Glauberi. Glauber's Spirit of Salt.

Take of sea-salt, and strong spirit of vitriol, each two pounds; water one pint; proceed as in the foregoing process.

It is a very unsettled point, what quantity of oil of vitriol is the proportion proper to be used in this process. The spirit of salt is

so

so little used, either in medicine or for any other purposes, that it is rarely prepared, but for the sake of its co-produce, the *Sal Glauberi*; and therefore it is in regard to this salt, and not the spirit, that the proportion of the ingredients merits any consideration. The difference of the proportion makes no alteration in the nature of the salt, but only in the quantity produced; and, as the common salt is much the cheaper ingredient, it is most profitable that the excess should be on that side. The exactest proportion that can be settled, according to the present common standard of oil of vitriol, is two parts of the salt to one of oil; and if the salt is found to shoot too slowly, a little oil of vitriol added to the chrystallizing solution will be a certain remedy; nor will this in the least injure the medicine.

Sal Mirabile Glauberi.

Glauber's Wonderful Salt.

Take the salt left in the retort after the distillation of the aforesaid spirit of salt, dissolve it in water; and filter it; evaporate part of the water, and set the other in a cold place to chrySTALLIZE. In cold weather it will shoot in 48 hours time; and in warm weather in 3 or 4 days.

Its operation is cathartic and diuretic; and answers all the intentions of most of the purging waters. Its dose is from half an ounce to an ounce, in a pint or quart of purging spring-water.

If the retort performs the operation without cracking, you may put water to the salt which is in it; and dissolve and filter, and so save the retort. The evaporation is most properly performed in a clean iron kettle, or an earthen one.

L. D. Sal Catharticus Glauberi.

Glauber's Salt.

The same as the preceding, except in the difference of the quantity of oil of vitriol to the salt, which see above.

E. D. Sal Catharticum Glauberi.

Take the salt left in the retort after the distillation of the spirit of sea-salt, (as directed in the E. D.) dissolved in water, filter through paper, and then reduce it to chrystals.

It is with great pleasure that I embrace this opportunity of exposing a malpractice too well known to those who sell medicines, and very little to those who prescribe them, of substituting in the place, and under the name of Glauber's salt, the *Sal Catharticus Amarus*, by a fraudulent preparation, made to resemble the other. This salt was first prepared at the salt works at Lymington, where the great quantity of bittern, or solution of the *Sal Catharticus Amarus*, which remained after the recovery of sea-salt from the sea water, enabled them to sell it, converted into chrystals like Glauber's salt, at a very low price. This salt was at first amongst the dealers, modestly called by the name of the place where it was made; but it has since been so universally sold for Glauber's salt, that it has entirely robbed the true one, invented by him, of his name; which is, in contradiction to it, now called *Sal Mirabilis*. As this counterfeit kind is much more nauseous, disagreeable to the stomach, apt to produce violent sickness and gripes, and on many other accounts inferior to the true kind, it is extremely fit that all physicians and others who are apprized of these facts, should, as

much as possible, discourage the use of it: in order to which, this infallible method of distinguishing the true from the false is furnished: let the salt suspected be dissolved, and when the solution is become clear and limpid, add to it a small quantity of a solution of salt of tartar, or any other alkaline salt, made clear likewise; if no change happens on the commixture, but the mix. solutions continue to be as transparent and limpid as when separate, it may with certainty be concluded to be the true Glauber's salt; but if a milky turbidness succeeds, which will afterwards subside in the form of a powder, it may thence be known to be the Lymington counterfeit.

Spiritus Salis dulcis.

Take of rectified spirits of wine three parts, put it into a large belt-head, and gradually add thereto of spirit of salt one part; digest them together some days in a sand-heat, and then distil them; taking care towards the end of the operation that the retort break not from too much heat.

L. D. Spiritus Salis Marini Coagulatus. Coagulated Spirit of Sea-Salt.

Pour a solution of any fixed alkaline salt, to Glauber's spirit of sea-salt, till all ebullition ceases; then evaporate the mixture to dryness.

It would be difficult to guess by what means this composition has, without any pretensions, intruded itself into this Pharmacopœia; since it produces a salt not differing in appearance if chrySTALLIZED, or any known quality, from sea-salt, of which it is a regenerate species; it may have some merit as a spe-

culative experiment, but can have no effect in medical practice, except the deceiving of persons easily captivated with novelty.

Nitrum Purificatum.

Purification of Salt-petre.

Take any quantity of nitre at pleasure; dissolve it in warm water; filter, evaporate and chrySTALLIZE, as in other salts.

This is an operation not absolutely necessary amongst us; the refiners of salt-petre giving it well purified into our hands. Some esteem the chrySTALLINE nitre best, and others the lump; but the difference between them is not discernible, especially as to any medicinal efficacies; the chrySTALS being the top, and the lump the bottom of the pan; in which the nitrous liquor was put to shoot.

L. D. Nitrum Purificatum.

Purified Nitre.

The same as the preceding.

In the same manner Sal Ammoniac may be purified.

Sal Prunellæ. ChrySTal Mineral.

Melt any quantity of salt-petre, in an earthen pot, or very clean iron kettle; when it is well melted, cast a little flowers of sulphur upon it; when that is burnt, put on more; and so do till the nitre flows as clear as rock water, without any scum: then with a clean iron or brass ladle take it out of the pot, and put it into a warm brass pan or mould; when that is coagulated, put it by, and with the ladle take out more; and so do till all the melted salt is cast; which keep for use.

If it be yet desired more pure, dissolve it in clean warm water; filter the dissolution, and evaporate till

till a thick skin appears at the top ; then set it to chryſtallize. This preparation is built on an erroneous foundation, which ſuppoſed that the nitre was purified by the deſlagration with ſulphur ; but ſo far from this, that the ſulphur alters a part of the nitre into a ſalt that hath different properties. In this preparation the nitre is partly converted into a vitriolated tartar. It is diuretic and cooling, and often given in fevers ; and is very proper where a diſcharge by urine is to be encouraged. It is alſo of good ſervice in ſore throats, and inflammations of the tonſils ; being gently melted in the mouth, and ſwallowed, with a little fine ſugar. Its doſe is from 6 grains to a drachm.

E. D. *Sal Prunellæ.*

Take of nitre 2 pounds, flowers of ſulphur 1 ounce ; to be treated as the preceding.

E. D. *Sal Polychreſtum.*

Salt of many Virtues.

Mix equal parts of ſulphur and nitre in fine powder, and put them into a red hot crucible, by a ſpoonful at a time : as ſoon as the flame of one ſpoonful is over, put in another ; and ſo continue till all the mixture is in. As ſoon as the deſlagration is finiſhed, let the ſalt cool ; and keep it in a cloſe glaſs veſſel.

To render it very pure, diſſolve it in hot water, filter and cryſtallize it.

If this ſalt be not ſo white as deſired, put it into a crucible, and ſet it in a ſtrong fire for three or four hours longer ; continually ſtirring it till it is very white. Then again diſſolve, filter, and coagulate ; and there will be a pure

Sal Polychreſtum. If to 6 ounces of this, there be put 1 ounce of ſublimed *Sal Ammoniac*, and half an ounce of *Sal Mirabile Glauberi* ; and it be diſſolved, filtrated, and chryſtallized together, the compoſition will be much more agreeable ; and better deſerve the name of *Polychreſtum* than the other. The doſe is from half a drachm to half an ounce ; and its operation is cathartic and diuretic. This *Sal Polychreſtum* is formed by an union of the vitriolic acid with the vegetable fixt alkali. In this operation both the nitre and the ſulphur are decomposed. The acid of the nitre and the inflammable principle of the ſulphur are diſſipated, and the acid of the ſulphur is united with the alkaline baſis of the nitre.

Nitrum Catharticum. Purging Nitre.

Put 1 pound of nitre into a crucible ; ſet it in a wind-furnace, and give it a gradual fire till it melts ; then put into it a piece of live charcoal, about a quarter of an inch diameter : when it has done flaming, put in another ; and ſo continue to do till the coal cauſeth no flame ; then the matter is called *Nitrum Fixatum*. Pour this into a warm mortar ; beat it to powder, and diſſolve it in diſtilled vinegar ; filter and evaporate it in a wide-mouthed glaſs ; diſſolve it again in freſh diſtilled vinegar ; filter and coagulate the third time : then diſſolve it in high rectified ſpirit of wine, which afterwards diſtil from it ; and there will be a ſalt eaſy of diſſolution, and pleaſant in taſte and operation.

This is cathartic and diuretic, and accounted a good opener of all inward obſtructions. Its doſe is from 2 ſcruples to 4 or 5 drachms.

Some of the foregoing preparations, and particularly that of *Sal Prunellæ*, our chemists have got a trick of spoiling with alum: as they stick at nothing for the increase of their own gain, and as their preparations often go through many hands before they are exhibited, they are not solicitous about their success, if they have but the external signs of being genuine, while in their own hands. And thus as alum gives this preparation a commendable whiteness, which is valued in the *Sal Prunellæ*; and because it makes the medicine come cheaper, they dash it, without any remorse or pain for the poor patient who is to take it.

Spiritus Nitri. Spirit of Nitre.

Take of nitre in fine powder 1 pound, of clean tobacco pipes 4 pounds, or of fuller's earth, dried and beaten to a fine powder, mix them well, and put them into a good earthen or coated glass retort: place it in an open furnace; lute on a receiver, and kindle the fire; which keep in the first degree till some red fumes appear in the recipient; neither augment it till those fumes disappear; then increase to the second, which will raise more red fumes; when they begin to decrease, raise it to the third, and so on to the fourth, and utmost degree of heat, till no more clouds come over: then let out the fire; and as soon as it is cool enough, take off the receiver, and put the spirit into a glass, with a glass or wax stopple.

The nitrous acid, whatever kind of body it be combined with, is both distinguished and extricated therefrom by means of any inflammable substance brought to a state

of ignition: if the subject be mixed with a little powdered charcoal, and made red hot, a deflagration or fulmination ensues, that is, a bright flame with a hissing noise; and the inflammable matter and the acid being thus consumed or dissipated together, there remains only the substance that was before combined with the acid, and the small quantity of ashes afforded by the coal.

In the following process, directed by the colleges of London and Edinburgh, the nitrous acid is extricated by means of the vitriolic acid: these prescriptions differ in the proportion of the acid to the nitre, but the spirit obtained in either case, is in quality the same; the difference affects only the residuum. When two parts of the nitre are mixed with one of the vitriolic acid, the residuum affords a vitriolated tartar.

This spirit is too corrosive to be much used internally; though some order it from ten to fifty drops in any convenient vehicle. Its chief use is to dissolve metals, and fit them for preparations.

Spiritus Nitri cum Oleo Vitrioli.

Spirit of Nitre with Oil of Vitriol.

Put one pound of salt-petre into a glass retort, and pour upon it one pound of oil of vitriol, and of spring-water twelve ounces, mix them, but avoid the fumes; then place the retort in a sand furnace; lute on a receiver, and give a fire of the first degree two hours; advance to the second, where keep it two hours longer; and so on to the third and fourth, giving two hours to each degree; in which time the operation will be ended. When all is cold, take off the receiver,

ceiver, and put the spirit in a phial stopp'd with wax, or a glass stopple.

This spirit answers all the ends of the former, and is much better for internal use, where it is very diuretic, and a good cleanser of the viscera. Its dose is from ten to fifty drops, in some soft vehicle; for these corrosive sharp diuretics ought to be given in such things; whereby their points are better guarded from mischief, and their efficacies also rather promoted than hindered. See the explanation of the operation of the diuretics.

This is also made with much less trouble than the former; for in that, if the nitre is not very pure and dry, and thoroughly separated from common salt, which is in all unrefined nitre, it will produce an *Aqua Regia*. And if it be not dry, it cannot be made into such a fine powder as is requisite to keep it from melting together; by which the emission of its spirits would be hindered. And to answer the charge of the oil of vitriol, there will be procured at the same time the

Sal Enixum Paracelsi.

Paracelsus's Sal Enixum.

This is only the *caput mortuum* of the former spirit, which remains in the retort, of a white colour, and pleasant acid taste. If it be dissolved in hot water, and crystallized, it will be yet a more elegant medicine, and endued with the same virtues as the *Tartarum Vitriolatum*. For which it is commonly sold in the shops.

Its operation is diuretic. The dose is from one scruple to one drachm, in broth or water-gruel.

L. D. *Nitrum Vitriolatum.*

Vitriolated Nitre.

The same with the preceding.

L. D. *Spiritus Nitri Glauberi.*

Glauber's Spirit of Nitre.

Take of nitre 3 pounds, strong spirit of vitriol 1 pound; let them be mixed gradually under a chimney, with great caution; then let them be distilled, first with a gentle heat, and afterwards with a stronger.

E. D. *Acidum Nitrosum vel Spiritus Nitri Glauberi.* Glauber's Spirit of Nitre.

This is distilled from nitre two pounds, and strong spirit of vitriol one pound. The nitre put into a retort, gradually pour on it the oil of vitriol. Distil in a sand heat, and gradually increase the fire until the iron pot is of a dusky red colour.

E. D. *Acidum Nitrosum Tenue.*

Weak Acid of Nitre.

Take of Glauber's spirit of nitre and water equal parts, mix them with care to avoid the offensive vapours.

L. D. *Spiritus Nitri dulcis.*

Take of rectified spirit of wine 2 pints, Glauber's spirit of nitre half a pound, mix them by pouring the spirit of nitre on the other, and distil the mixture with a gentle heat, as long as what comes over will not raise any fermentation with lixivial salts.

This makes a pleasant scented, as well as pleasant tasted spirit, insomuch, that some have got a trick of mixing it, in small quantities, with ordinary spirits, and putting them off for French brandy. It is diuretic, may be given from 20 drops to 100 or 120.

E. D. *Acidum Nitri Vinosum vulgo Spiritus Nitri Dulcis*

Take of rectified spirit of wine 3 pints. Glauber's spirit of nitre

one pound. Pour the spirit into a large phial placed in a vessel filled with cold water, and gradually add the acid, carefully shaking the mixture whilst making it; lightly cover the phial, and set it for 7 days in a cool place; after which distil in the heat of boiling water into a receiver placed in cold water or snow, and distil to dryness.

Aqua Fortis.

Take of nitre and green vitriol uncalcined, each 3 pounds; of the same vitriol calcined to redness 1 pound and half; mix them thoroughly, and distil with a strong fire as long as any red fumes arise.

L. D. Aqua Fortis composita.

Take of *Aqua Fortis* 16 ounces, sea-salt 1 drachm, distil them to dryness.

This preparation is an imperfect *Aqua Regia*, and seems very arbitrarily called compound *Aqua Fortis*: the reason of ordering such a compound, is the supposition of its being the most proper for the solution of quick-silver, in order to the making red precipitate; where we find the use of it directed. The re-distillation of the spirits, after the commixture, seems entirely needless, as no material alteration can be supposed to result from it.

Aqua Fortis duplex.

Take of green vitriol calcined to whiteness, clay dried and powdered, and nitre powdered, each equal parts; having mixed the ingredients thoroughly, put them into an earthen retort, so as to fill it two-thirds, and distil as in the foregoing processes.

Aqua Fortis purificata.

Purified *Aqua Fortis*.

Drop into the aqua fortis a drop or two of solution of silver made in

aqua fortis; if it become milky or cloudy, drop in a little more of the solution, till a fresh addition occasions no further change; allowing proper intervals for the white matter to settle, that the effect of a new addition may be the better perceived. Then pour the liquor into a glass retort, and distil in a sand heat to dryness.

The silver may be recovered from the white settlings, without any considerable loss as follows:

Let the matter be well dried; then mixed with a little pot-ash, and the mixture made into a paste with oil. Put this paste into a crucible, surrounding it every where with a little more pot-ash. Set the crucible in a proper furnace, and gradually raise the fire, so as to bring the whole into fusion. When the crucible is grown cold, a lump of fine silver will be found in the bottom.

Aqua Regia.

Take of powdered *Sal Armoniac* one ounce, put it into a large cucurbit, and add to it, by degrees, four ounces of spirit of nitre, or double *Aqua Fortis*; let them stand together in a sand-heat till the salt is entirely dissolved.

N. B. The spirit of nitre is best for this purpose, if of a middle degree of strength, between single aqua fortis and strong spirit of nitre.

Arcazum duplex, seu duplicatum.

Take any quantity of the *caput mortuum* of *Aqua Fortis* made with equal parts of nitre and vitriol, and dissolve it in hot water, by standing some hours, and now and then stirring the mixture. Let the water be filtered; evaporate to the appearance of the skin upon the surface,

surface, or even almost to dryness, and leave it to shoot.

This is also mentioned in some authors by the name of *Nitrum viriolatum*, and *Sal dulcis Holfatiæ*; and is greatly extolled for a diuretic, sudorific, and, as the humours are disposed, sometimes for a cathartic too; but we hardly ever meet with it in prescription. Its dose is from half a scruple to half a drachm.

Nitrum fixatum. Fixed Nitre.

Melt sixteen ounces of salt-petre in a strong and large crucible among burning coals; throw into it a spoonful of coals grossly powdered, and there will arise a flame and detonation; which being over, throw in as much more, and continue to do so, until the matter flames no longer, but remains fixed in the bottom of the crucible; then put it into a warm mortar, and when it is cold powder it, and dissolve it in a sufficient quantity of water; filter the dissolution thro' brown paper, and evaporate all the water in an earthen pan in sand. There will remain a very white salt, which you must keep in a phial well stop'd.

This is of no great medical use, but in the following preparation. It differs very little from the salt of tartar.

Tinctura Nitri.

Tincture of Nitre.

Take of the above described fixed nitre one pound, melt it in a crucible, with a strong heat, for three or four hours; then put it into a warm mortar; powder it, and whilst warm pour upon it two pounds of tartarized spirit of wine; set the mixture in a matraass upon warm sand, gradually increasing

the fire till the spirit of wine fumes and so continue for two or three hours: in which time the fixed nitre will have communicated its tincture to the spirit of wine. Decant and put on more, and digest as long as it yields any tincture.

This operates both by diaphoresis and urine, but chiefly the latter way. It is accounted a great purifier of the blood; and a good antiscorbutic. Its dose is from 20 drops to 60. It scarce differs from the *Tinctura Sals Tartari*.

Pulvis Fulminans.

Take nitre three parts, salt of tartar two parts, and sulphur one part; mix them well in a warm mortar, with the pestle a little warm, and with all expedition possible, that it may not attract the moisture of the air, which the salt of tartar soon does.

The operation of this is diaphoretic and diuretic; but it is hardly ever prescribed, and therefore not made, unless to play tricks with; for one drachm of this powder, held over the fire in a spoon or shovel, will first melt, and then go off with an explosion, not inferior to that of a well-charged musquet.

Note, That in the rectification of all the acid spirits under this article, the phlegm comes over first, because it is the lightest part of the whole; whereas in vinous spirits the phlegm rises last, because it is there the heaviest.

Alumen. Alum.

This has been mentioned under the class of astringents. There are no preparations of it in the shops, but the *Alumen ustum*, which is by melting it in a fire-shovel, or a crucible, and letting it bubble until it comes to a white substance.

It

It loses, by this process, about one sixth of its weight; and, by the loss of this quantity of water, becomes proportionably more acrid. It is used as an escharotic. It gently eats away proud flesh; but it leaves such a hardness upon the part, as makes it little esteemed in that intention. Many mix a little of it with the sugar they dulcify their cordial waters with, which fines them down, and throws the milkiness to the bottom; from which they may be poured by inclination, or raked off with a crane.

L. D. Alumeaustum. Burnt Alum.

Let alum be put into an iron, or earthen vessel, and calcined as long as any ebullition appears.

Aqua Aluminosa Magistralis.

Take of rock alum, and white mercury sublimate, ana 2 drachms, boil them in rose and plantain-water, ana one pound, till half is consumed; filter the remainder, and keep it for use.

This is prescribed against deformities of the skin, and often for the itch; but it is an uncertain remedy, and not to be used without caution.

L. D. Aqua Aluminosa Bateana.

Dr. Bates's Alum-Water.

Take of alum and white vitriol each half an ounce, water one quart, dissolve the salts by boiling them in water; and when the fæces have subsided, filter the solution through paper. This liquor is used for cleansing ulcers and wounds, and for removing cutaneous eruptions, bathing the parts with it hot; for a collyrium, and as an injection in the gonorrhæa, and fluor albus, when not accompanied with virulence.

Aqua Aluminosa. Alum-Water.

The same as the *Aqua Aluminosa Magistralis*, except that common water is ordered in the place of the rose or plantain-water, and intended for the same purposes.

Sal Ammoniacum. Sal Ammoniac.

This is brought from Alexandria in Egypt, Venice, Antwerp, &c. It is either natural or artificial: the natural, found in very hot countries, where the earth has imbibed the urine of animals; but of this little or none comes to us.

Sal Ammoniacum Sublimatum.

Sublimation of Sal Ammoniac.

Put any quantity of *Sal Ammoniac* in gross powder into a retort, or matrafs, with its head; place it in a sand-furnace; sit on a receiver, and give a gradual fire to the third degree, in which it must be kept till all is sublimed, which may be perceived by the sublimate's rising clear above the sand. If the head of the subliming-vessel be large and capacious, the sublimed produce will have the form of flowers; if more confined, a cake, resembling the common *Sal Ammoniac*, but more pure, will be obtained.

This is diuretic, and is said to operate by sweat; its dose is from two grains to one drachm.

L. D. Sal Volatilis Salis Ammoniaci. Volatile Salt of Sal Ammoniac.

Take of the purest chalk two pounds, *Sal Ammoniac* one pound, sublime in a retort with a strong fire.

The *Sal Ammoniac* is a neutral salt, composed of the volatile alkali and marine acid. In this process the acid is absorbed by the alkaline quality of the chalk; and the volatile

volatile alkali is set at liberty. The fixed alkali, when salt of tartar is used, begins to act upon the *Sal Ammoniac*, and extricates a pungent urinous odour, as soon as they are mixed. Hence it is better not to mix them until they are put into the distilling vessel; chalk does not begin to act upon the *Sal Ammoniac* till a considerable heat is applied, hence they may be well mixed together before they are put into the retort: the surface of the mixture should be covered with a little more chalk in powder, to prevent those particles of *Sal Ammoniac* that lie uppermost, from subliming unchanged. When chalk is used it requires more heat than when salt of tartar is used: yet care must be taken that the fire is not too strong, nor too suddenly raised, least a part of the chalk should be carried up with the volatile salt. When all the salt is sublimed, and the receiver becomes cool, it may be taken off, and luted to another retort charged with fresh materials: this process may be repeated, till the recipient appears lined with volatile salt to a considerable thickness; the receiver must then be broken, in order to get out the salt.

Volatile alkaline salts, of which this obtains the principal place in practice, are found useful in hypochondriacal and hysterical cases, and gives relief in most of the symptoms attending them, whether faintings, lowness of spirits, flatulent colics, or head-achs; they also remove the heart-burn, and those disorders of the intestines which proceed from the eating fruit, or other acescent diet; they also are of great efficacy in pleurisies, quinzies, and other inflammatory fevers, if given more copiously than is yet in common practice. The

dose in hypochondriacal cases, &c. may be from three to ten grains; but in pleurisies, and those febrile cases where they are proper, they may be given with advantage in a much greater quantity; and the dose repeated every four hours. The proper form for administering volatile salts, and indeed all volatile bodies, is in draughts; as in other forms, they will of course be continually flying off; and it seems to result thence, that the spirit of *Sal Ammoniac*, which is in reality only a solution of the salt, should not be preferable to the dry salt: but besides others, there is this very prevalent reason against such preference of this spirit, that in the salt this dose can be ascertained; and if the compounder of the medicine complies with the prescription, there can be no error; whereas the spirit may vary greatly in strength, and the real proportion of salt intended be therefore either exceeded or unsupplied.

The dose is from ten drops to sixty, in any vehicle.

L. D. *Spiritus Salis Ammoniaci.*

Spirit of *Sal Ammoniac*.

Take of any fixt alkaline salt one pound and half, *Sal Ammoniac* one pound, water four pints; with a gentle fire distil off two pints.

E. D. *Spiritus salis Ammoniaci.*

Spirit of *Sal Ammoniac*.

Take of *Sal Ammoniac*, and salt of tartar, each sixteen ounces; powder them separately, then mix them, and put them into a glass retort, and pour to them 24 ounces of water; perform the distillation in sand, and continue it till the salt which concretes in the receiver, is dissolved by the aqueous fluid which comes over after it, or

gradually increasing the fire, distil to dryness.

If the receiver be taken off before any fluid arises, you will obtain *Alkali Volatile ex Sale Ammoniaco vulgo*.

E. D. *Sal Ammoniacus Volatilis*.

Volatile Salt of Sal Ammoniac.

Take *Sal Ammoniac* one pound, the purest and driest whitest chalk two pounds; mix them well, and sublime from a retort with a strong fire.

The volatile salt, and spirit of *Sal Ammoniac*, are the purest of all the medicines of this kind. They are somewhat more acrimonious than those produced directly from animal substances; for these, it is scarce possible, by the common methods of purification, to separate entirely from their oil, which gives them some degree of a saponaceous quality.

Spiritus Salis Ammoniaci cum Calce viva.

Spirit of Sal Ammoniac with Quick-Lime.

Take of *Sal Ammoniac*, in fine powder, one pound, of quick-lime, one pound and a half; put them presently into a retort, and add four pounds of spring-water; shake it, to mix the powder and water, and place it in a sand-furnace; lute well the juncture of the receiver, and with a gentle heat draw off two pints.

The effect of the quick-lime on the *Sal Ammoniac*, is very different from that of chalk or of fixt alkaline salt. Immediately on mixture, a very penetrating vapour exhales; and in distillation, the whole of the volatile salt arises in a liquid form. This spirit does not effervesce on mixing it with acids,

When this spirit is mixed with the spirit of *Sal Ammoniac* prepared with salt of tartar or white chalk, also with the spirit of hartshorn, it may be detected by adding to a little of the suspected spirit, about one fourth its quantity or more of rectified spirit of wine; which, if the volatile spirit is genuine, will precipitate a part of its volatile salt, but occasions no visible separation or change in the caustic spirit, or in those which are sophisticated with it.

If a solution of crude *Sal Ammoniac* and fixt alkaline salt mixed together, is given for the spirit of *Sal Ammoniac*, it is detected by adding to a little of it, a small portion of rectified spirit of wine, by which a fixt (not volatile) saline matter will be precipitated.

The virtues and doses of this are the same as the former; but it is not so good for inward use, through the heat it has from the lime, but that makes it the quicker in scent, and therefore best for smelling to; and is a better menstruum for sundry vegetable substances, particularly the Peruvian bark. When any alkaline salts are mixed with the *Sal Ammoniac*, for these preparations, the operator must be very nimble, else the *Sal Ammoniac* opens and exhales so suddenly, that there will be a great waste of it; and if the lime was not to run a little in the air, before mixture, in the last process it would be difficult to get it into the vessel; no concrete salt can be obtained from this process.

E. D. *Alkali Volatile Causticum, vulgo Spiritus Salis Ammoniaci cum Calce viva.*

Take fresh made quick-lime 16 ounces, water and crude *Sal Ammoniac*,

niac, of each 8 ounces. To the water in an iron or an earthen vessel, put the lime coarsely powdered; cover the vessel for 24 hours, whilst the lime falls into a fine powder; afterwards put it into a glass retort, and add to it the *Sal Ammoniac* well powdered; speedily close the mouth of the retort, and mix the matters well by shaking them together; lastly distil, on a gentle fire, into a cool receiver, as long as the spirit continues to drop. In this distillation, the vessels must be so luted, that the most subtil vapours may all be kept in.

Flores Salis Ammoniaci.

Flowers of Sal Ammoniac.

Take of dry *Sal Ammoniac*, in powder, any quantity; put it into an earthen cucurbit, and having fitted on a blind head, sublime the flowers with a fire gradually increased.

Spiritus Salis Ammoniaci dulcis.

Sweet Spirit of Sal Ammoniac.

Take of *Sal Ammoniac*, and salt of tartar, ana four ounces; powder them separately, and mix them well in a glass or marble mortar; put this mixture into a glass body, pour upon it of rectified spirit of wine ten ounces, stir all together with a wooden spatula, and fit to the body a head and receiver: lute well the junctures; place the vessel in a sand-furnace, and give it first a very little fire to warm the body. The volatile salt will rise, and stick to the head and neck of the receiver. Increase the fire a little, and continue it until there distils nothing more. The whole will be ended in four or five hours. Let the vessels cool, and unlute them. There will be a little volatile salt stick to the

head, and a spirit remain in the receiver. Put quickly both the one and the other into a retort or sand; and having fitted another retort to it, to serve for a receiver, and luted the junctures, distil the whole with a small fire. Cohobate it again three times; then keep what has been distilled in a bottle well stoppt. Almost all the volatile salt will be dissolved in the spirit of wine; and that which remains undissolved will receive a perfect dissolution in the bottle.

This, Lemery recommends as a very good medicine for the lethargy, the palsy, scurvy, malignant fevers, and hysterical maladies: it may be given instead of the spirit of *Sal Ammoniac*, before described; and it is pleasanter to the taste. It promotes sweat and insensible perspiration. The dose is from twelve drops to thirty. It is also good, outwardly applied, to paralytic limbs; and for many nervous aches.

L. D. *Spiritus Salis Ammoniaci dulcis.*

Dulcified Spirit of Sal Ammoniac.

Take of any fixt alkaline salt, half a pound, *Sal Ammoniac* four ounces, proof spirit three pints; the spirit may be obtained by distillation, with a gentle heat in the proportion of a pint and an half.

E. D. *Spiritus Salis Ammoniaci Vinosus.*

Vinous Spirit of Sal Ammoniac.

Take of the caustic spirit of sal ammoniac four ounces, rectified spirit of wine eight ounces, mix.

Spiritus Salis Ammoniaci Succinatus.

Spirit of Sal Ammoniac with Amber.

Either digest a pound of spirit of *Sal*.

Sal Ammoniac with an ounce of oil of amber, or in the last process, put spirit of amber instead of so much rectified spirit of wine.

This is reckoned to be yet more cephalic, and better suited to all nervous indispositions; but it is much more unpleasant. Its dose is from ten drops to forty.

Sal Volatile Oleosum.

It is now called *Spiritus volatilis Aromaticus*.

This preparation, which Sylvius first made common, is mightily now in use. It is a most noble cephalic, and cordial, either to smell to, or take inwardly. Its dose is from ten drops to an hundred, or upwards, in wine, or any common vehicle. It is much varied, according to the different humours of the maker; so that there will be no end of giving all the receipts followed. A *Sal volatile*, thus made with *Marum Syriacum* alone is wonderfully penetrating, grateful, and serviceable to the head; and, diluted to a convenient strength, is one of the best sternutatories that can be invented. Medicines of this kind might be prepared extemporaneously, by dropping any proper essential oil into the dulcified spirit of sal ammoniac, which will readily dissolve the oil, without the assistance of distillation. e. g. To a pint of dulcified spirit of sal ammoniac add two drams of any proper essential oil, or so much as the spirit will dissolve, or dissolve the oil in half a pint of highly rectified spirit of wine, then mix the solution with half a pint of spirit of sal ammoniac, on which a white coagulum will be formed, but if set in a warm place, is soon resolved into a transparent liquor, depositing a

quantity of volatile oily salt. By either of these methods, a volatile oily spirit may be occasionally made, and at pleasure adapted to particular purposes, by choosing an essential oil suited to the intention. The spirits thus made are not so clear as those made by distillation, but they are not inferior in medicinal efficacy. It is easy to impregnate this with steel, as either with the *Flores Ammoniaci Martiati*, or the *Regulis Martis*, which is the most delicate way of giving that mineral to nice constitutions, and where it requires a previous communication into the finest parts. The flower the fire is, the more salt crusts upon the top and neck of the receiver; and therefore if care be taken not to draw it too near, whereby that salt is melted down, a great deal may be preserved, which is vastly preferable to all of this kind, not only for fragrancy of scent in smelling-bottles, but for efficacy internally used in all nervous cases.

L. D. *Spiritus Volatilis Aromaticus*:
Volatile Aromatic Spirit,
or *Sal Volatilis Oleosus*.

Take essence of lemons, and essential oil of nutmegs, each two drachms; of essential oil of cloves, half a drachm, dulcified spirit of *Sal Ammoniac*, 2 pints; distil them with a very slow fire.

E. D. *Spiritus Volatilis Aromaticus*,
vulgo Spiritus Volatilis Oleosus,
et *Spiritus Salinus Aromaticus*.
Saline Aromatic Spirit.
or *Sal Volatilis Oleosus*.

Take of the vinous spirit of sal ammoniac 8 ounces, essential oil of rosemary a dram and half by weight, essential oil of lemon peel one dram

dram by weight, mix so as to dissolve the oils.

L. D. *Spiritus Volatilis Fætidus.*
Fetid Volatile Spirit.

Take of fixed alkaline salt one pound and half, *Sal Ammoniac* one pound, *assafoetida* 4 ounces, proof spirit six pints; the spirit may be obtained by distilling with a gentle heat, in the quantity of five pints. This is a most excellent antehysterical medicine, and may be given from thirty drops to eighty.

Take eight ounces of the vinous spirit of sal ammoniac, and half an ounce of *assafoetida*. Digest in a close vessel for 12 hours, then distil off eight ounces in a water bath.

E. D. *Spiritus Mindereri.*
Mindererus's Spirit.

Take of the volatile salt of *Sal Ammoniac* any quantity, pour on it by degrees (stirring the mixture at the same time) of spirit of vinegar a sufficient quantity, *i. e.* as much as will excite any effervescence.

The salt which this spirit contains, is a strong fudorific, and has, in reality, the febrifuge and deobstruent qualities of neutral salts, in a high degree. The dose may be as much as contains from ten grains to one scruple of the volatile salt. As it operates without heat, it is usually given in febrile and inflammatory disorders.

It may not be improper to close the preparations under this article with the

Distillation and Salt of Urine.

Take of the urine of a sound young man, newly made, as much as you please; put it into an iron kettle, and evaporate it to the consumption of one half, with a gentle heat. Put the remainder into a

stone bottle; stop it well, and set it by to ferment about two months. Open the bottle, and if it smells quick and strong, put it into a large glass retort; lute on a receiver, and set on a very gentle fire for an hour; then increase it a little, which will raise the salt and spirit; continue that degree till the salt begins to dissolve, then let all cool. Take off the receiver, and put all that is come over into a cucurbit: set it in sand; lute on its head and receiver; give a gentle heat at first, and the salt, and some part of the phlegm, which we call spirit, will rise. Continue the fire till the head is filled with salt; which, when it decreases, let all cool, and put what is in the receiver into a phial well stoped.

The dose of this is from five to fifty drops. It is reckoned diaphoretic and diuretic.

In the evaporation, observe to do it by a gentle heat, lest some of the volatile salts, by too great an agitation, should fly before its fermentation. The use of the fermentation is to separate the phlegm, which would take up too much room to no purpose. If the urine be not sufficiently fermented, which is known by its weak scent, stop it again, and let it stand longer.

If the salt and spirit are desired apart after the rectification, then pour off the spirit into a phial, and tie a double paper over the mouth of the receiver; set it downward, and let it drain till the salt is dry: then scrape it off from the sides with a crooked hoop-stick; and put it into a phial well stoped. If a greater quantity of salt is sought for, put both it and the spirit together into a long body; lute on the head and receiver; and let it stand

stand in a digesting heat of sand, that the salt may gently sublime.

The spirit may be made without fermentation, by evaporating the urine to the consistence of a syrup; and giving it a gradual fire to a moderate degree. In this operation the phlegm comes first, and then some volatile salt; afterwards more volatile salt will appear in white fumes, and the spirit and a little stinking oil, which must be separated from the salt and spirit before rectification. After one rectification the volatile salt and spirit may be separated as in the former: but it is not esteemed of equal goodness with the fermented spirit; because all the salt of urine is volatilized by the fermentation. In the *caput mortuum*, as some call it, there will remain a strong lixivial salt. And if the volatilizing, fixed, and lixivial salts deserve that encomium which the most celebrated authors give them, the salt of fermented urine must be the best medicine: and indeed there is a perceptible difference between them; the fermented spirit and salt being more pleasant and penetrating both in smell and taste, than the unfermented. This salt is of the same nature with the volatile salt of hartshorn, or any other animal substance.

Vitriolum purificatum.

Purification of Vitriol.

All the vitriols are made pure by dissolution, filtration, evaporation, coagulation, or chrySTALLIZATION: and their highest degree of purity is, when no scæces settle in their dissolution.

L. D. *Vitriolum calcinatum.*

Calcined Vitriol.

Let green vitriol be calcined in

an open earthen vessel in the fire till it be thoroughly dry: then let the vessel be broken, and the vitriol separated from it, and kept in a well closed vessel, for use. Vitriol is sufficiently calcined when that which is next the sides and bottom of the vessel is changed red.

The directions in the London Dispensatory for calcined alum and vitriol are very incautiously given; for if the vitriol be thus rashly put into a fire, sufficient to bring it to redness, the far greater part would boil over the vessel and be lost: to prevent which, this method should be used. Let the vitriol be put into an earthen vessel till it is three parts full, then place it over a fire, in a heat just sufficient to make it boil; when the ebullition has nearly ceased, the space the vitriol before took up will be much contracted: without taking out what it now contains, let the vessel be supplied with a fresh quantity; and continue thus to recruit it, till the ebullition ceasing, the vessel shall be found full of dry vitriol calcined to whiteness. If a higher calcination be required, place the pot and vitriol, now within the fire, so that it may be made red hot, and let it remain in that condition, till the vitriol be of a due redness.

Vitriol calcined thus to redness, is called *Calcanthum Rubescens*, and is the Calcothar of the present Edinburgh Dispensatory. If it be calcined till it begins to turn red, it is in that state extremely styptic, and being snuffed up the nose, is very effectual in stopping the bleeding thereof, even though the most violent.

E. D. *Vitriolum calcinatum.*

Take any quantity of green vitriol, calcine it in an unglazed earthen

earthen vessel, placed on a moderate fire, until it becomes white and dry.

Oleum and Spiritus Vitrioli.

Oil and Spirit of Vitriol.

Beat the colcothar, or vitriol calcined to redness, to powder, and sift it through a coarse hair sieve; then put into those pots called long-necks, five or six pounds each, and place them in a reverberatory furnace; lute on the receivers with a lute made of clay, sand, and cut flax; then make a small fire under the grate with charcoal and small-coal; stop the fire-hole of the furnace, and the ash-hole slightly; let the fire smother so six or eight hours, to dry the furnace and junctures of the receivers; then put the fire upon the grate; and keep it in the first degree six or eight hours; increase it to the second for four or five hours, and so to the third; which will raise white clouds in the receiver; continue it so long as the white clouds come over; when they begin to abate, augment it to the fourth degree in its extremity; and continue it till the vitriol emits no more fumes:

Then let all cool, carefully take off the receivers, and put the distilled liquor into a retort; which place in the sand furnace; fit on a receiver without luting; make a gentle fire, which will raise a little insipid phlegm of a sulphureous smell: put that into a phial, and stop it. Put on the receiver again; and continue the second degree of fire; and so pass on to the third; which continue till fumes rise into the receiver, and the oil in the retort be clear and white as rock-water; then let all cool, and put

the spirit by itself, and the oil left in the retort by itself also.

L.D. Spiritus Vitrioli tenuis et fortis.
Weak and strong Spirit of Vitriol.

The same as the above, only the name of oil of vitriol is changed to strong spirit.

E. D. Acidum Vitriolicum Tenuis, vulgo Spiritus Vitrioli Tenuis.

Weaker Spirit of Vitriol.

Take of the acid of vitriol by weight one part, water seven parts, mix.

The spirit of vitriol is the most ponderous of all the liquids we are acquainted with, and the most powerful of the acids. If any other acid be united with a fixt alkaline salt or earth, upon the addition of the vitriolic; such acid will be dislodged, and arise on applying a moderate heat, leaving the vitriolic in possession of the alkali; tho' without this addition, it would not yield to the most vehement fire. Mixt with water, it instantly conceives great heat; exhibited to the air, it imbibes its moisture, and soon acquires a notable increase of weight. In medicine, it is employed chiefly as subservient to other preparations: it is likewise not unfrequently mixed with juleps and the like (in such quantity as will be sufficient to give the liquor an agreeable tartness) for abating heat, quenching thirst, and promoting the urinary discharge.

E. D. Calx Zinci, vulgo Flores Zinci.

Let a quart crucible be covered with a tile, and placed in a furnace with its mouth inclining to that of the furnace. Apply the coals so about the bottom of the crucible
U that

that it may be moderately heated; then take away the tile, cast in about a drachm of zinc, and be careful that none of the fuel falls into it.

Presently after, look to the bottom of the crucible, and you will see the zinc in a flame, and rising in flocks like wool; stir the zinc now and then with an iron spatula, that it may be completely sublimed; then take it from the crucible with a spoon, and more zinc being thrown in, repeat the operation at pleasure.

Gilla, seu Sal Vitrioli.
Salt of Vitriol.

Dissolve any quantity of white vitriol in warm water: filter it, and let it stand warm for 24 hours to settle: decant it from the sediment; and evaporate it to a pellicle in an earthen pan; and set it two or three days in a cold place to shoot into chrystals.

It works by vomit, and is a gentle puke enough for young children, from three to eight grains; and to grown people from a scruple to a drachm. It corrugates the stomach into contraction so soon, that it is fabled to come all up again upon the first ejection; and therefore some give as many doses of it as they would have the patient vomit; giving each in a porringer or basin of posset-drink, or carduus tea.

L. D. Sal Vitrioli.
Salt of Vitriol.

Take of white vitriol one pound, strong spirit of vitriol one ounce, water a proper quantity; dissolve the vitriol in the water by boiling, and filter through paper, and after a due evaporation, set the

solution in a proper place to form chrystals.

The intention of this process is not to separate the ochery matter of the vitriol, but to prevent its separating and colouring the chrystals: the addition of the acid keeps it perfectly dissolved.

E. D. Vitriolum Album Purificatum.

Take of white vitriol eight ounces, filings of zinc half an ounce, common water a pint. Digest for some hours, over a gentle fire, filter through paper, and then place the filtered liquor in a cool place, that chrystals may be formed.

L. D. Spiritus Vitrioli dulcis.

Dulcified Spirit of Vitriol.

Take of strong spirit or oil of vitriol one pound, rectified spirit of wine one pint; mix them gradually with the utmost care, and distil them with a slow fire, till a black froth begins to rise; then immediately let the whole be removed from the fire, lest the froth rise over into the receiver, and render the whole operation ineffectual.

In this process the greatest care should be taken in mixing the two ingredients; for which the safest method is, to add the spirit of vitriol to the other by slow degrees, and to let the mixture stand without farther addition each time, till no sensible heat can be perceived after shaking it; when the whole is commixed, it should likewise be suffered to stand some time before it is distilled.

The true dulcified spirit arises in thin subtil vapours, which condense upon the sides of the recipient in straight striae. It is colourless as water, very volatile, inflammable, of an extremely fragrant smell, in taste somewhat aromatic: when.

when the fumes form irregular strææ, or are collected in drops like oil, the receiver must be removed; for then an acid liquor only is produced, which is succeeded by the black froth above mentioned: so for the dulcified spirit of vitriol, the distillation should not be continued until the black froth appears.

E. D. *Spiritus Vitrioli dulcis.*

Take of rectified spirit of wine 4 pounds, cautiously drop into it by very slow degrees of oil of vitriol 6 ounces; digest them for 3 days; and then distil according to art.

The proportion here given of the oil of vitriol to the spirit of wine seems much more proper than that of the college of London, though that is but half the quantity directed in former Dispensatories. But this holds only true in regard to its use, as dulcified spirit; since, if it is intended for the elixir *Vitrioli dulcis*, it is proper that it should be prepared as in the London Dispensatory, with equal parts: and certainly by that process, one may suppose the college of London intended no other use of it.

The dulcified spirit of vitriol has been for some time greatly esteemed both as a menstruum and a medicine. It dissolves some resinous and bituminous substances more readily than spirit of wine alone, and extracts elegant tinctures from many vegetables. As a medicine, it promotes perspiration and urine, expels flatulencies, relieves spasms, &c. the dose from 10 to 100 drops, in any convenient vehicle. Hoffman frequently directed this spirit, as a succedaneum to his anodyne mineral liquor.

E. D. *Liquor Ætherus Vitriolicus.*
Vitriolic Ethereal Liquor.

Take of rectified spirit of wine 32 ounces by weight, acid of vitriol 16 ounces by weight. Put the spirit into a glass retort previously heated, and pour the acid to it in one stream. Gradually mix by gently and often shaking; then immediately distil in sand (heated previous to this operation,) into a receiver cooled by water or snow. Regulate the fire so as quickly to boil the liquor, and continue to boil, until 16 ounces by weight is brought over; then remove the retort from the sand. To the distilled liquor add two drams of the strong common caustic; then distil it again from a deep retort into a receiver properly cooled, until ten ounces by weight of æther are obtained.

Spiritus Ætherus.
Ethereal Spirit.

Take of rectified spirit of wine three pounds; put it into a two-gallon stone bottle; add to it, by two ounces at a time, allowing the interval of a quarter of an hour between each addition, three pounds and six ounces of the strong oil of vitriol; let the mixture digest, without heat, for the space of a night: in the morning decant it from one vessel to another three or four times; convey it thro' a glass funnel and long tube into a retort capable of containing three times the quantity; place it in an iron pot with an inch of sand at the bottom; add more sand round the retort to the height of the mixture; set it over a quick fire; lute a large receiver to the retort, leaving a pin-hole in the luting, unless the receiver is perforated; continue the fire till an ebullition, ac-

accompanied with large bubbles, is observed in the mixture, then remove the fire entirely: the heat of the sand will be sufficient to complete the distillation of the æther, which is to be separated from the spirit of wine distilled before the ebullition, in the manner hereafter mentioned.

The process being finished, a large quantity of liquor is found in the retort: this liquor consists of some spirit of wine, a quantity of æther, and often some sulphureous volatile spirit. To separate the æther, pour the liquor into a clean retort; add two or three ounces of pot or pearl ash; lute a large receiver; draw off one half by a very gentle heat; shake it with an equal quantity of pump water; whatever portion of spirit of wine rose with it will mix with the water; the pure æther being immiscible with it, will rise to the top.

Æther, if duly prepared, is neither acid nor alkaline, is immiscible with less than twenty times its weight of water; it will not mix with acids, nor alkalines, nor vinous spirits; it dissolves oils, resins, balsams, gums, gum-resins, wax, and extracts oily and resinous parts of vegetables: applied to parts affected with pains, it gives, for the most part, immediate relief: internally administered, it is perspirative, and so potently diuretic as, if long continued, to occasion a diabetes; the only inconvenience hitherto observed from its use.

E. D. *Acidum Vitriolicum Vinosum, vulgo Spiritus Vitrioli dulcis.*

Take of the vitriolic ethereal liquor by weight one part, spirit of wine rectified by weight two parts, mix.

Liquor Anodynus Mineralis Hoffmanni.

Hoffman's Mineral Anodyne Liquor.

Into half a pound of the concentrated oil of vitriol, placed in a large glass retort, pour by little and little, thro' a long-stemmed funnel, one pint and a half of highly rectified spirit of wine. Stop the mouth of the retort, digest for some days, and then distil with a very gentle heat. At first a fragrant spirit of wine will arise; and after it, a more fragrant volatile spirit, to be caught in a fresh receiver. The receiver being again changed, a sulphureous, volatile, acid phlegm comes over; and at length a sweet oil of vitriol, which should be immediately separated, lest it be absorbed by the phlegm. Mix the first and second spirits together, and in two ounces of this mixture dissolve twelve drops of the sweet oil. If the liquor hath any sulphureous smell, redistil it from a little salt of tartar. Ph. Paris.

Hoffman frequently substituted the dulcified spirit of vitriol for this preparation. It hath precisely the same virtues as the vitriolic æther, which is now frequently used in its stead. All its virtues appear to depend on the æther which is in it. The dulcified spirit of vitriol, æther, and this liquor, are nearly if not equally alike efficacious, in their gently stimulating, carminative, antiseptic, diaphoretic, and anodyne virtues. It is impossible to say whether the above is the exact preparation recommended by Hoffman. It is evident from his writings, that his anodyne liquor was composed of the dulcified spirit of vitriol, and the aromatic oil which arises after it, but not in what proportion.

proportions he used them together. The physicians of Paris ascertain the proportions as above; those of Wirtemberg think that all the oil was mixed with all the spirit obtained in one operation, without regard to the precise quantities.

Spiritus Febrifugus Di Clutton.

Clutton's Febrifuge Spirit.

Take of the oil of sulphur by the bell, rightly prepared, rectified oil of vitriol, and spirit of salt, of each equal parts; add to these of rectified spirit of wine, three times the quantity of the whole. Digest for a month, then distil to dryness.

Great difficulty attends the preparation of this medicine, by this direction, tho' exactly as related by Mr. Clutton in his publication on the method of curing all continued fevers. However, as his successor, Mr. Corbyn, in Holbourn, has continued the process, his integrity secures to us a genuine production.

Sal Sedativum Hombergii: or the Volatile Narcotic Salt of Vitriol, of Monsr. Homberg.

Dissolve 9 ounces of borax in a sufficient quantity of warm water, and add thereto 2 ounces of the oil of vitriol. Evaporate this mixture, till thin plates appear upon the surface; then suffer the fire to decay, and let the vessel stand unmoved till plenty of crystals are formed.

This salt was first discovered by Homberg. He obtained it by sublimation, and thinking that it was the produce of the vitriol, and that the borax only disengaged it (the reverse of which is in reality the case), he called it the Volatile

Narcotic Salt of Vitriol. The sedative salt is the produce of the borax, and if it is combined with the crystals of soda, a regenerated borax is obtained, which in no respect differs from borax before its decomposition.

There are various methods of obtaining this salt: and though the vitriolic acid is generally used, any other will answer as well. The sedative salt appears to the taste, a neutral salt, but examined with alkalies, has the properties of an acid, effervescing, uniting, and crystallizing with them, and destroying their alkaline quality. It dissolves in water, and in rectified spirit of wine, though not very readily in either.

It is supposed to be a mild anodyne, to calm the heat of the blood in fevers, to prevent or remove delirious symptoms, and to allay spasmodic symptoms, whether hysterical or hypochondriac. The dose from 2 to 12 grains in any convenient liquor, and repeated as required.

L. D. *Lapis Medicamentosus.*

The Medicinal Stone.

Take of alum, litharge, bole armenic, or French bole, each half a pound; the colcothar of green vitriol three ounces, vinegar a quarter of a pint; dry the whole mixed together over a fire till it grows hard.

This powder is astringent, is used to fasten loose teeth, heal the gums, check defluxions in the eyes, &c.

L. D. *Spiritus, Sal, et Oleum Succini.*
Spirit, Salt, and Oil of Amber.

Let amber be distilled in a sand-heat, with a fire gradually increas-

ed, and there will rise a spirit, oil, and salt, impure with a part of the oil.

The oil, by redistillation, will separate into a thinner part, which will ascend; and a thicker part left behind, called Balsam of Amber.

The salt must be boiled either in the spirit, or with water: then set aside to crystallize, and it will by this means be freed from the oil adhering to it: every repetition of this process will render the salt more pure.

In the distillation of amber, the heat should scarcely exceed that of boiling water, until all the aqueous liquor and the thin oil have arisen; after which it must be gradually increased. If the fire is hastily urged, the amber is in danger of swelling suddenly, and rising into the receiver. When sand is intermixed with the amber, it is less subject to this rarefaction, and the fire may be raised somewhat more expeditiously. The receiver may be left unluted, that it may occasionally be removed as the salt rises and concretes in the neck of the retort, from whence it should be scraped to prevent the oil from carrying it down into the receiver. When a gross thick oil appears, and no more salt is seen to arise, the distillation is stopped.

The Prussians distil the amber without any sand, or other intermedia mixed with it; they permit the oil to carry down the salt into the receiver, and afterwards separate it by means of bibulous paper, which imbibes the oil, and leaves the salt dry; which paper is afterwards squeezed and distilled: they continue the distillation till all that can be forced over has arisen, with care only to catch the last thick

oil in a separate receiver; and from this they extract a considerable quantity of salt, by shaking it in a strong vessel with three or four fresh portions of hot water, and evaporating and crystallizing the filtered waters.

The spirit of amber is only a solution of a small quantity of the salt in water; it is therefore properly employed for dissolving the salt in order to its crystallization.

Pure salt of amber dissolves both in water and in rectified spirit, though not readily; of cold water in summer, it requires for its solution about twenty times its own weight; of boiling water only about twice its weight. Exposed in a glass vessel, to a heat a little greater than that of boiling water, it first melts, then rises in a white fume, and concretes again in the upper part of the glass, into fine white flakes, leaving, unless it was perfectly pure, a little coaly matter behind. It effervesces with alkalies both fixt and volatile, and forms with them neutral compounds, greatly resembling those composed of the same alkalies and vegetable acids. Mixed with acid liquors it makes no sensible commotion. Ground with fixt alkaline salts, it does not exhale any urinous odour. By these characters, this salt may be readily distinguished from all the other matters that may be mixed or sold with it.

The oil differs from all those of the vegetable kingdom, and agrees with the mineral petrolea, in not being soluble, either in spirit of wine, fixt alkaline lixivium, or volatile alkaline spirit; the oil, after long digestion or agitation, separating as freely as common oil does from water.

E. D. *Sal Volatile, Spiritus, & Oleum Succini.*

Volatile Salt, Spirit, and Oil of Amber.

Take of powdered amber and clear sand equal parts; being mixed, put them into a glass retort, of which they will fill one half; then fit on a large receiver, and distil in a sand-heat, with a fire gradually increased: at first a spirit will come over with some yellow oil, then a yellow oil with salt; after which, the heat being increased, more salt will rise with a reddish oil.

When the distillation is completed, empty the fluid out of the receiver, and having collected the salt, which adheres to the sides, dry it by a gentle pressure, between the folds of spongy paper. The oil may be separated from the spirit by filtering, and afterwards rectified by distilling it four times in clean retorts, each time leaving behind about one eighth in the retort. The salt may be farther purified by dissolving it in warm water, and then crystallizing it.

The addition of sand, or any other substance, may be better omitted, if the fire be judiciously conducted, the intent of such being only to prevent the amber from raising a froth into the receiver.

We have included three medicines in our process, because they so naturally arise out of the same subject. The rectified oil is sometimes internally prescribed in nervous cases, joined with spirit of *Sal Ammoniac*, or of lavender, or other liquors, from five to fifteen drops. The thicker oil is most used externally, in fixed rheumatic pains and aches; as also to paralytic limbs: but some com-

mend it inwardly in old gleets; and say it answers even when the best turpentine balsams fail. The spirit is used much to the same purpose, both internally and externally, from ten drops to one dram, in any convenient vehicle inwardly; and outwardly rubbed in, *per se*, or mixed with other suitable liquors. But the volatile salt is the main part, and so much in use, that the others are of little value, with respect to it. It is of a penetrating acid taste; it dissolves both in water and rectified spirit of wine. It is a most admirable cephalic detergent, in that sense as has been explained in the first Class of the first Section. In the convulsive deliriums of fevers it is mightily prescribed; and reckoned not inferior to any thing in such intentions; because, besides its peculiar efficacy upon the nerves, it also conduces much, with alexipharmics, to promote a diaphoresis: in all chronic cases likewise, as epilepsies, palsies, and the like, it is scarce ever left out of prescription. The dose is usually from three to fifteen grains. This salt has further one useful property, which seems attended to by few; and that is quickening the operation of some cathartics; especially of the aloetic and resinous kinds. A few grains, with any of the milder officinal pills, as *Pil. Ruffi*, and the like, will make them brisker by much in operation, and yet rather milder. Boerhaave calls it *Diureticorum & anti histericorum princeps*, and in that difficulty of making water, which frequently comes on, and is a very troublesome symptom in the small pox, nothing is so effectual as a few grains of this salt.

The great consumption of this medicine, in comparison to what

The amber produces of it, and the price which upon that account it bears, is so tempting to the avarice of the chemists, that it is most abominably adulterated; and therefore not to be trusted to from any hands but those who make it for their own use; some sophisticate it with *Sal Ammoniac*, with nitre, some with cream of tartar, and others with salt of coral. The first of these cheats may be discovered by a strong urinous scent, if it be rubbed with salt of tartar; the second, by its nitrous taste; the third, by solution in clear water; for the salt of amber will much sooner dissolve than the tartar, and therefore manifestly leave that behind to view: and the last is discoverable by trying it upon a red hot iron; for the genuine salt will fly away, the vinegar which the coral hath absorbed will be destroyed, and nothing but an insipid earth be left upon the iron.

This salt best fits the forms of boles, pills, or electaries, for taking; because in juleps and draughts, in which sometimes it is inadvertently ordered, it is extremely nauseous; the genuine salt having a mixed relish of salt and sulphur; which in a liquid form lies so naked to the palate, that it often urges the patient to eject it by vomit immediately after taking.

Tinctura Succini. Tincture of Amber.

Put four ounces of amber (in very fine powder) into a bolt-head; pour upon it spirit of wine twelve ounces; invert a small bolt-head into the mouth of the bigger; lute well the juncture, and digest upon a heat of sand for four or five days, shaking it about two or three times a day. When the spirit is

well tinged of an amber-colour, pour it into a phial; and put on the remains half a pound more of spirit of wine: digest as before, and extract a tincture; both which put into a matrass; and in a gentle heat of ashes draw off one half of the spirit of wine, which will serve again for the same use; and put the tincture into a phial well stoped.

This is prescribed for the same intentions as the preceding preparations; and is given from ten to seventy or eighty drops in any proper vehicle.

Tinctura Succini.

Tincture of Amber.

To two ounces of yellow amber in powder, add a pound of *Spiritus vitrioli dulcis*: digest the tincture in a sand-heat for four days, and then filter for use, the dose is from ten to a hundred drops.

This is a very elegant preparation of amber, of a grateful balsamic taste and fragrant smell. It is recommended in disorders arising from a lax state of the solids, debility of the nerves, suppression of the menses, *Fluor Albus*, semina gleets, &c.

Potestates Succini. Powers of Amber.

Take oil of amber one ounce, volatile *Sal Ammoniac* half an ounce: grind the oil and salt well together in a little mortar; pour to them spirit of wine tartarized half a pound; and put them afterwards into a bolt-head; invert a little glass to make it fit for circulation. Lute well the joint; and put it in warm sand, to stand in digestion for four or five days, shaking it two or three times every day; in which time the spirit of wine will have imbibed the oil and salt:

salt: set it by, and when it is cool, put it in a phial well stopp'd for use.

This has the virtues of the oil; and is fitter for prescription internally, because it better mixes with any vehicle for the conveniency of taking. Its dose is from 10 drops to 30 or 40; it is seldom or never used.

Crystalli Tartari.

Crystals of Tartar.

Take of white tartar powdered any quantity, which boil till it is perfectly dissolved in twenty times its weight of water; let the solution, while yet hot, be filtered through paper, and received in a wooden vessel; then expose it a night or longer to the cold air, that crystals may be formed, and float to the sides of the vessel; the water being afterwards poured off, the crystals are to be collected and dried for use.

This does not differ from the

Cremor Tartari.

Cream of Tartar.

Boil a solution of tartar till a thick skin appears on the surface, take it off and dry it; then boil it till there is a new skin, soon.

L. D. The crystals, or cream of tartar are now so seldom prepared by those who practise pharmacy, being supplied by those who make it their proper business, that the college of London, not regarding it any longer as a part of pharmacy, have omitted to give any process for preparing them, and ranked them, in their prepared state, amongst the simples.

The virtues of this are known to every one. It is a cooling gentle cathartic, and partly passes off, as most saline purgatives do, by urine. It may be given with good effect in small doses as an alterative, particularly where there is a tendency to an alkaline putrefaction

in the *primæ viæ*, or in the whole habit. It is esteemed a specific in the dry gripes, excited by the fumes of lead. The dose is from half a drachm to one ounce.

L. D. *Sal Tartari.*

Salt of Tartar.

Let crude tartar, of either kind, folded up in wet brown paper, or contained in a proper vessel, be put into the fire, and continued there till all the oil is burnt out; the salt is then to be procured from it by solution in boiling water, with a subsequent evaporation, after having been filtered through paper.

Fixt alkaline salts, perfectly purified, appear to be one and the same, whatever kind of vegetables they were produced from; those of some marine plants excepted. In volatile alkalies rendered pure, there appears to be the same identity.

E. D. *Sal Tartari.*

Salt of Tartar.

Take any quantity of tartar, wrap it in wetted blotting paper, or put it into a crucible, about which apply a gentle heat, until it is burnt to a coal; then powder it, and calcine it in an open crucible, by means of a moderate fire, and without fusion, until it becomes white, or at least an ash. Then dissolve it in hot water, and strain it through a linen cloth. Evaporate this strained solution in a clean iron vessel, and towards the conclusion carefully stir it with an iron spoon, that no matter may adhere to the bottom of the vessel. The whitest salt remains if it is left a little longer on the fire, even until the bottom of the vessel becomes reddish. Lastly, place it to cool in a glass vessel well stopp'd.

As to the origin of fixt vegetable

ble alkaline salts, it is disputed whether it exists ready formed in vegetables, previously to their combustion, by which it is obtained; or whether vegetables contain only the materials proper for its formation. By incineration is the usual mode of obtaining this kind of salt; but Mr. Margraff obtained the vitriolated tartar, nitre, and regenerated common salt, by dissolving cream of tartar in the vitriolic, nitrous, and marine acids; and it is demonstrated, that the constituents of cream of tartar, are the peculiar acid of tartar and fixt vegetable alkaline salt.

The medicinal virtues of salt of tartar, and all other lixiviate salts, are of four kinds, to overcome acidity in the *via prima*;—to resolve the viscosity of the blood and several humours, and consequently to remove the glandular obstructions thence arising;—to loosen the texture of calcareous concretions in the liver, kidneys and bladder;—and to operate as a diuretic. The first of these qualities renders them efficacious in cholics, and the flatulent disorders which arise from the defect of bile, or from eating fruit or other acedent diet. The second makes them highly serviceable in cachectic and hypochondriac cases, in schirrous livers, jaundice, and the stone and gravel. The fourth, in common with all the other kinds of salts which promote urine, constitutes them useful in dropies. The dose of fixed alkaline salts may be from a scruple to a drachm, which may, without the least inconvenience, be taken twice a day, if diluted with half a pint of water.

E. D. *Sal Lixivius Purificatus.*

Purified Lixivial Salt.

Lixivial salt, (that which the

English call pearl ashes) put into a crucible, and made red hot in the fire, that the oily fordes, if any there are, may be burnt. Then dissolved in an equal weight of water, let it stand until the feces are settled; pour off the clear liquor into a clean iron vessel and boil it to dryness, carefully stirring it at the conclusion that nothing may adhere to the vessel. It is duly purified if when perfectly dry it wholly dissolves by rubbing it with an equal weight of water, and is free from colour and odour.

L. D. *Lixivium Tartari.* Deliquiate Salt of Tartar, commonly called Oil of Tartar *per deliq.*

Set tartar calcined to a whiteness in a moist place, that it may be dissolved by the air.

The salt of tartar freed from the ashes, seems much fitter to make this lixivium than the tartar only calcined without further separation; for in the latter there will necessarily be a mixture of the white ashes or earth, from which the deliquiated salt cannot be freed, without such dilution as destroys the intention of the preparation; and therefore only a very minute quantity of clear fluid will be, by this method, obtained. This lixivium, though thus prepared with much trouble, differs in no respect with a saturate solution of lixiviate salts, in cold water, provided care be taken that a proportion of the salt, greater than the quantity of water used can dissolve, be added. This oil mixed with oil of almonds and rose water makes a safe wash for pimples, morpew, &c.

Liquamen Sal's Tartari, vulgo Oleum Tartari per deliquium dictum.
Oil of Tartar *per deliquium.*

Take any quantity of salt of tartar,

tartar, put it in a flat glass dish, and, exposing it to the air several days in a moist place, it will run into a fluid; which is either to be filtered through paper, or separated from the fæces by decantation. The more the salt has been calcined the more easily it will run.

L. D. & E. D. Tartarum Solubile.
Soluble Tartar.

Take of any fixed alkaline salt one pound, water one gallon; to the salt, dissolved in the water boiling, throw in cream of tartar gradually, till the effervescence, that before arose on each addition, ceases to appear; which will be when, or before, three times the weight of alkaline salt has been thrown in; then filter the solution through paper; and, after a proper evaporation, let it be set to shoot in crystals; or otherwise make a total evaporation of the water, that the salt may remain in a solid mass.

To hit the point of saturation exactly is not necessary, for if the liquor is permitted to cool a little before it is committed to the filter, and then properly exhaled and crystallized, no error of this kind can happen; for, the superabundant cream of tartar will crystallize and remain on the filter, and if the alkali exceeds, the preparation will remain uncrystallized. The crystallization of this salt is troublesome: it is most convenient, to let the acid prevail at the first, to separate the superfluous quantity, by suffering the liquor to cool a little before the filtration, and then proceed to the total evaporation of the aqueous fluid, which will leave behind it the neutral salt required. The most proper vessel for this purpose is a stone ware one; iron discolours the salt,

In doses of from a scruple to a dram, it is a cooling aperient; two or three drams loosen the belly; and an ounce is briskly purgative. It is an useful addition to resinous purges.

L. D. Tartarum Emeticum.
Emetic Tartar.

Take of washed crocus of antimony, and crystals of tartar, each half a pound, water three pints; boil them half an hour, then filter the water through paper, and, after due evaporation, set it to crystallize.

E. D. Tartarum Emeticum.
Emetic Tartar.

Take of cream of tartar four ounces, powdered glass of antimony six ounces; mix and cast it by little and little into a gallon of water whilst boiling in a glass vessel placed on sand. Continue to boil it gently for six hours, duly supplying fresh water as the evaporation requires it; then filter the liquor, and evaporate it so as that it may afford crystals.

This is a very brisk emetic, and will operate from two to eight grains. Three or four grains with half a scruple of testaceous powder will vomit, purge, and sweat, and produce all the effects of Dr. James's powders.

Mr. Beaume affirms from experiment, that the acid of tartar may be easily saturated with the reguline part of antimony; and as the glass of antimony is the most emetic and most soluble of all the antimonial preparations by fire, it should be preferred for making a neutral antimonial soluble tartar: yet, reflecting on the nature of the glass of antimony, it is not always of the same strength. It is made by fusing the grey calx of antimony calcined

calcined to an uncertain degree; and we know that if it be too little calcined, we shall obtain an opake matter that resembles the liver more than the glass; if it is too much calcined, it cannot be vitrified, nor even fused, by the most intense heat; between the degree of calcination which is sufficient to give an opake fused matter, and the degree in which it begins to be unfusible, there are many intermediate ones; all of which are sufficient to produce glasses of antimony; but these glasses differ in the degrees of transparency, intensity of colour and fusibility, according as the calcination has been more or less complete. We cannot doubt that different glasses of antimony must be more or less emetic, and that perhaps different quantities of these glasses are required for the perfect saturation of the acid of tartar; besides, we are both ignorant of the degree of calcination which renders the glass of antimony most emetic, and also of the method of obtaining it if we knew it. Hence we are not certain that emetic tartar made with glass of antimony is equally and constantly emetic; therefore instead of the glass of antimony, we recommend the *Pulvis Algarothi* for making the emetic tartar. Mr. Beaume further observes, that the *Pulvis Algarothi* hath the advantages of the glass of antimony, in being convertible into a neutral salt, by means of the acid of tartar, and is not subject, like the glass of antimony, to give the emetic tartar prepared with it an uncertain degree of strength; though of itself, it is like the other calces, uncertain; but it is the best preparation of antimony from which to obtain a certain and uniformly effec-

tual medicine. The *Pulvis Algarothi* is not saline, and from the quantity of marine acid which it contains, it is somewhat caustic; but, when it is washed with a little fixed alkali, all the acid is separated, and then it is totally soluble by cream of tartar, and is thereby convertible into a soluble emetic tartar, perfectly neutral, and for which purpose use it as follows:

Mix an equal quantity of cream of tartar, and the powder of Algaroth, (or as much of the latter as is required to saturate the former) throw this mixture gradually into boiling water, and continue the boiling gently, till there is no effervescence, or till the cream of tartar is well saturated. Filter the liquor, and when this liquor is cool, fine crystals will be formed in it, which are soluble tartar perfectly saturated with the Algaroth's powder: as soon as the crystals are formed, carefully dry them, and keep them in a well closed glass vessel.

In preparing the emetic tartar, vessels, &c. of glass should be used; for iron, tin, lead, copper, decompose it by attracting the acid more strongly than the antimony does; whence one cause of inequality in different parcels of this preparation, made at different times. The powder of Algaroth is a calx of antimony constantly of the same degree of emetic strength; it is emetic because the regulus of antimony first dissolved by marine acid, and afterwards separated from that acid, retains the quantity of phlogiston that is necessary to give an emetic quality to the calx of antimony; the quantity of phlogiston which it retains, and therefore its emetic power, must always be the same for the marine acid, of the corrosive sublimate,

sublimate, which afterwards becomes the acid of the butter of antimony, is always the same in quantity, and in its degrees of concentration, and of activity; consequently the calx of antimony separated from it must always contain an equal quantity of phlogiston, and is therefore much preferable to the glass of antimony, which contains sometimes more, sometimes less phlogiston. Thus, by using the powder of Algaroth instead of the glass of antimony, we obtain an uniform and certain emetic tartar. An uniformly active emetic tartar being possessed, physicians will only have to attend to the sensibility or irritability of the constitutions of their patients.

Tartarum Emeticum & Catharticum.

Emetic and Cathartic Tartar.

Take of salt of tartar half a pound, *Crocus Metallorum* two ounces; reduce them both into fine powder, and mix them well; put them into a crucible, and let them melt together for half an hour: then take it from the fire, and dissolve it in clean water; filter the dissolution, and evaporate to a pellicle upon the surface; then drop gradually into it oil of vitriol, till the ebullition ceases; and over a gentle heat of sand, evaporate to driness.

This works both by vomit and stool; and agrees well enough with some gross constitutions, that can bear thorough shaking; and whose stomach and glands of the *primæ viæ* are foul. It is proper in the first approaches of the dropsy, scurvy, and jaundice; and also in hypochondriacal melancholy it cannot fail of doing good, by accelerating the motion of the fluids, and agitating the spirits. Its dose is from three to fifteen grains.

L. D. Tartarum Vitriolatum.

Vitriolated Tartar.

Take of green vitriol eight ounces, water four pounds; throw salt of tartar, or any other fixed alkaline salt, to the vitriol dissolved in the water boiling till all ebullition ceases, which will be when four ounces, or something more, of the salt has been used; then filter through paper, and, after due evaporation, set it to shoot.

Vitriolated tartar is with much more convenience made from oil of vitriol, than from crude vitriol; as the small expence saved by using the first instead of the latter, will in no degree countervail the trouble and the waste of the neutral salt, that is occasioned by the large quantity of the solution, which the large mass of precipitated oker retains in the filter; and if the operation be not conducted with the greatest care in the filtering, a disagreeable ochrous flavour and brown colour, from which it is scarcely possible to keep it free, when made by this method, will deprave the salt. The salt prepared according to this process was formerly called *Sal Vitrioli catharticum*.

E. D. Tartarum Vitriolatum.

Vitriolated Tartar.

Take any quantity of the acids of vitriol, diluted with an equal quantity of water, put it into a large glass vessel, and by little and little, pour into it pure lixivial salt dissolved in double its weight of water, enough to completely neutralize the acid; when the effervescence is finished, filter the liquor through paper, and after a sufficient evaporation set it aside, that the crystals may be formed.

Tartar vitriolate may, on occasion, be likewise made from lixiviate

ivate salts and alum, by the same method the London Dispensatory directs in the case of green vitriol. It may be also procured by mixing crude sulphur with fixed alkaline salt, and firing the sulphur, stirring the mixture till it will no longer flame, and recovering, and purifying the salt by solution, filtration, and crystallization. But the most commodious process is this of the Edinburgh Dispensatory given here, the difference of the expence in using oil of vitriol being more than balanced by the easiness of the process, as was before observed.

Though the manner of preparing this salt, as directed by the Edinburgh college, is the most commodious, yet there is one imperfection in the process, viz. a deficiency in the quantity of water. For want of water, as fast as the alkaline salt is neutralized by the acid, great part of it falls to the bottom in a powdery form. In the Leyden Pharmacopœia, this inconvenience is provided against: the oil of vitriol is diluted with four times its quantity of water, and the alkaline ley being gradually dropt into it till the point of saturation is obtained, four times the quantity more of water is added, and the mixture boiled, that such part of the salt as had precipitated, may be dissolved: the liquor is then filtered while hot, and set by to crystallize. To obtain perfect and well formed crystals, the liquor should be continued in a moderate heat, such as the hand can scarcely bear, that the water may slowly evaporate. When the crystals are perfect they are oblong, with six flat sides, and terminated at each end by a six sided pyramid: some appear composed of two pyramids joined together by the

bases, and many, in the most perfect crystallizations, are very irregular.

This is the same with the *Sal Polychrest* of the shops; what is sold under the name of vitriolated tartar being extremely acid; as it is, in fact, nothing but the *caput mortuum* of Glauber's spirit of nitre reduced to powder. The acrid appearance of this substitute has occasioned the salt to be but little used in practice as a purgative: but, when duly neutral, it is in many cases preferable to any purging salt whatever; being an excellent hydragogue, and of great efficacy in scorbutic and cachectic cases. The dose sufficient, in general, to purge gently, is half an ounce. And whoever would procure this medicine properly prepared from the shops, should insist on having it in crystals; otherwise, if vitriolated tartar be demanded, they will have the acid salt above-mentioned; or, if *Sal Polychrest*, they will have tartar vitriolate powdered with Epsom salt, or some such mixture. If the vitriolated tartar is given in doses of a scruple or half a dram, it is an useful aperient: in larger ones, as to four or five drams, it is a mild cathartic, which does not pass off so hastily as the *Sal Coth. Amar.* or the *Sal Glaub.* and it seems to extend its action farther.

Sapo Tartari. Soap of Tartar.

Take any quantity of the salt of tartar well calcined and powdered, whilst hot; immediately pour upon it, in a broad glass vessel, twice its quantity of the oil of turpentine; and let them stand together in a cellar for some weeks, till the oil hath penetrated the salt: then add more oil by degrees, till the
salt

salt hath absorbed thrice its own quantity, and both appear united into a soap; which, if the matter is every day stirred, will happen in a month or two. The effect succeeds sooner, if the containing vessel be fixed to the sail of a windmill, or any other machine that turns round with great velocity.

This process will soon be finished if the oil be poured upon the pulverized salt whilst very hot; they will then immediately unite, with a hissing noise, and by rubbing for a few minutes in a hot mortar, form a truly saponaceous mass. If the salt is cold before the oil is added, it is scarce possible to unite them without the addition of a little water. Mr. Beaume says, that the soap consists of only the resinous part of the oil united with the alkali: that the more fluid and well rectified the oil is, the less soap is obtained; and that by adding a little turpentine in substance to the mixture, the preparation is considerably accelerated.

This is sometimes called *Sapo Philosophorum*, and Starkey's sope. Of itself, it is an excellent diuretic; and is conveniently enough mixed in a bottle. It may be given from ten grains to half a drachm, and is very good against the gravel in the kidneys, or bladder; but as it is hardly ever prescribed for these purposes, it is not kept in the shops; and only made for Matthews's pill, in which it is accounted the corrector.

E. D. *Lixivium Saponarium.*

Sope, or Capital Lee.

Take of pearl-ashes, and quicklime, an equal weight; pour water on them, till the lime is flaked; then a large quantity of water being added, stir them well together,

that the salts may be melted out of the ashes; then let them stand till the solution becomes clear, which either pour off into another vessel, or filter through paper. A winepint of this solution, examined with the greatest accuracy, ought to weigh exactly 16 ounces troy. If it be found heavier, for each drachm in which it exceeds this specific weight, let an ounce and half of water be added to every pint; but if it prove lighter than this proportion, then let the solution be evaporated, till so many half ounces of water have exhaled as countervail the defective drachm; or let it be poured back on fresh lime and ashes. Quicklime greatly increases the strength of alkaline salts; and hence this ley is much more acrimonious, and acts more powerfully as a menstruum on oils, fats, &c. than a solution of the pot-ash alone. The lime should be used fresh from the kiln; by long keeping, even in close vessels, it loses of its strength: such should be made choice of as is thoroughly burnt or calcined, which may be known by its comparative lightness. All the instruments employed in this process should be either of wood, earthen ware, or glass; the common metallic ones would be corroded by the ley, so as either to discolour, or communicate disagreeable qualities to it.

E. D. *Lixivium Causticum.*

Caustic Lee or Lixivium.

Take fresh burnt quicklime 8 ounces, pure lixivial salt 6 ounces. Put the lime into an iron or earthen vessel with 28 ounces of warm water. The ebullition and extinction of the lime being finished, immediately add the lixivial salt, this being also well mixed, cover
the

the vessel until it is cold. The matter being cooled shake it, and pour the whole into a glass funnel, having first covered its pipe with a little clean lint, cover the upper mouth of the funnel, whilst the narrow one of its pipe is inserted into another glass vessel, that the lixivium may drop into it. When the lixivium ceases to drop, pour into the funnel some ounces of water: do this warily that it may float above the matter. Repeat the infusions of water as often as may be required, until 32 ounces by measure, or 36 ounces by weight of the lixivium are obtained, which will be in two or three days; lastly, the upper part of the lixivium being mixed with the lower, by shaking them well together, keep it for use in a well closed glass vessel.

The lixivium is duly prepared when it is free from colour and odour; nor effervesces with acids, except perhaps very slightly.

L. D. *Sapo Amygdalinus.*
Almond Soap.

Take of fresh expressed oil of almonds any quantity, the sopleley (as above) three times the measure of the oil; let them be digested together in a heat scarcely sufficiently to make them boil, and in a few hours they will incorporate; the mixture, being then boiled for a short time, will appear transparent, and of a mucilaginous consistence, and being cold, will concrete into a jelly-like substance; then throw in common salt, till the fluid no longer remains mucilaginous; but continue the boiling till, being dropped upon a tile, the water shall be found to separate readily from the coagulated sople; then extinguish the fire, and the

sople will gradually float, which, before it is cold, should be taken off, and put into a wooden mould with a bottom of linen; after some time, let it be taken out, and kept, that it may acquire a proper consistence.

In the same manner, sople may be made from oil of olives; but the sweetest and best of oil should be used, that it may be as little as possible disagreeable to the palate or stomach.

The strength of soples varies with their age, and the manner in which they are kept. Fresh sople loses by being thoroughly dried near one third of its weight; the whole of the loss is mere water, a circumstance to be attended to in prescription; if it is dried, by being long exposed to the air, it will imbibe a portion of the acid floating therein, which, by uniting with the alkaline salt, will dislodge a proportionable quantity of the oil: the external coat should be shaved off;

Tinctura Salis Tartari.

Tincture of Salt of Tartar.

Take of pure salt of tartar six ounces. Melt it in a crucible until it acquires a red colour; pulverize it whilst hot, and immediately pour upon it, in a strong necked matras as much rectified spirit of wine as will stand three or four inches above it: digest for several days in a pretty strong sand-heat, that a tincture may be obtained.

Pure alcohol does not dissolve alkaline salts; hence, the quantity of the salt taken up into the tincture will only be in proportion to the phlegm which it contains. This tincture is usually expected to be of a red colour, but if neither the salt nor the tincture have

any

any oily tincture, the spirit tho' it acquires from the alkali a hot pungent taste, will scarce receive any colour, except from some spark flying into the salt while it is calcining. A little antimony is usually added, and thence the two tinctures are the same. As to the medicinal qualities, however former practitioners extolled this medicine, the present totally neglect it.

L. D. *Sal Diureticus*. Diuretic Salt.

Take of any kind of fixed alkaline salt one pound; let it be boiled, with a very slow fire, in four or five pints of distilled vinegar; the effervescence, which will for some time be seen, being over, let more distilled vinegar be added at several times, till the aqueous part of what was before used being, in the mean time, almost consumed, no further fermentation appears on the addition of fresh vinegar, which will happen when nigh twenty pounds has been employed; afterwards let it be slowly evaporated to dryness; an impure salt will be left behind, which, with a gentle fire suffer, but not too long, to run into fusion; then dissolve it in water, and filter it through paper: if the fusion be properly conducted, and succeeds, the filtered solution will be limpid and colourless; but if it miscarries, the solution will appear brown: lastly, evaporate the water in a very shallow glass vessel, stirring the salt as it concretes, that it may the sooner attain a proper dryness, and preserve it in a vessel very carefully closed, to prevent its deliquiating by the air.

This salt ought to appear of the purest whiteness, and dissolve intirely in water or spirit of wine, without forming the least sediment; but if the salt, notwith-

standing it appears of a proper whiteness, deposits any sediment in spirit of wine, let it be dissolved in the same spirit, and the filtering and subsequent evaporation again repeated.

An extraordinary nicety in the appearance of this salt has been insisted on, without regard to any reasons taken from the real nature and intention of the medicine, which would be equally efficacious if all the subsequent parts of the process was omitted, and the vinegar neutralized with pure lixiviate salt was used; but as it is necessary that apothecaries should be provided with the medicines in the form wherein the college have thought proper to order them, the following directions may serve to obviate the difficulties which attend producing this salt, with the qualities prescribed. The great nicety lies in the just management of the fusion; the proper time of which must be discovered by dropping a little into water, and observing if the dissolved part frees itself easily from the black coally substance which was mixed with it; for then the whole must be immediately removed from the fire: it is necessary, likewise, to be careful to prevent its melting in the last drying; for if that is suffered to happen, it discolours the salt, and renders it not wholly soluble in spirit of wine; but if the foliated appearance, whence it has derived the name of *Terra Foliatæ Tartari*, be required, melting is then necessary.

E. D. *Tartar Regeneratus*.

Regenerated Tartar.

It is the *Sal Diureticus* of the London Dispensatory. It was formerly

merly called The Grand Cor-
rector.

L. D. *Cauticum commune fortius.*
The strong common Caustic.

Boil soap lec to a fourth part of its quantity, then throw in, while it is yet boiling, of quick-lime powdered, sifted, and kept several months in a bottle well corked, such a quantity as will absorb all the fluid, and form a paste, which must be preserved for use, in a vessel very carefully closed.

The reason of keeping the lime several months, is said to be in order to render it mild; but then the keeping, as directed, well secured from the air, entirely defeats that intention: for in that condition it will retain its power any length of time.

L. D. *Cauticum commune mitius.*
The weak common Caustic.

Take of soft-sope, and fresh quick-lime an equal weight; let them be immediately mixed, when wanted for use.

This may be accuated to any degree, by the admixture of lixiviate salts, and made to answer all the purposes of caustics. These have gone under the name of velvet-caustics; and some, in order to render their operation less painful, have added opium to them. They are much to be preferred to the *Lapis Infernalis*, and other caustics of a saline substance, which dissolving, spreads a troublesome inflammation much farther than they are intended to act.

E. D. *Cauticum commune Acerri-
mum.* Common strong Caustic.
*Olim Lapis Septicum, seu Cauter-
ium Potentiale.*

Potential Caustery.

Take any quantity of caustic

ley. In a clean iron vessel evaporate on a gentle fire, until the boiling ceases, and the saline matter flows quietly and like oil, which will be before the vessel is red hot. Thus liquified, pour the caustic on a clean iron plate, to be cut into proper pieces before it hardens; and then it must be put up for use in well closed phials.

This is much inferior to the common caustic of the London Dispensatory, being attended with all the inconveniencies of the *Lapis Infernalis*, and other caustics, composed wholly of saline bodies.

E. D. *Cauticum commune mitius.*

Milder common Caustics.

Take any quantity of the caustic ley, evaporate it in an iron vessel to a third part; then add quick lime newly extinguished a sufficient quantity to form a paste of a proper consistence; which must be kept in well closed phials.

Essential and fixed Salts of the
Edinburgh Dispensatory.

Sal Essentiale Acetosæ.

Essential Salt of Sorrel.

Take juice of sorrel, clarified by decantation from the sediment, after having been suffered to stand at rest a proper time, any quantity; evaporate till only one third remains; filter it through a flannel bag, and repeat the evaporation, till the salt appears to concrete in the furnace; the fluid is then to be put in a glass vessel, and a little oil of olives being poured upon it, place it in a cellar till crystals are copiously produced, which being gently washed in clean water, are to be dried for use. In the same manner may be prepared

The

The salts of all such acid, austere, astringent, and bitter plants, as contain only a small quantity of oil. The plants that are naturally more dry, should be sprinkled with water as they are bruised, that the juice may be the more easily pressed out.

The waters of these plants, which are not to be procured by distillation, may be obtained by dissolving a proper quantity of their essential salt in common water.

These essential salts are rarely demanded in practice, being very troublesome and tedious in their preparations; and as their analysis shows them to consist only of a volatile alkaline salt, and vegetable acid, their place may be supplied by the *Spiritus Mindereri*. Their qualities are diuretic and deobstruent, from their resolving the viscosity of the blood and humours. As to what has been imagined of their possessing any particular qualities proper to the herbs which produce them, there is not the least foundation for such an opinion; the specific properties of vegetables residing in the resinous, or sulphureous part of their juices, as may be experimentally demonstrated. The dose of essential salts may be from ten grains to a scruple.

To increase the quantity of the salt, the magma after pressure may be boiled in water, and the decoction added to the expressed juice. The whole may be after-

wards depurated together. The evaporation should be in shallow stone-ware vessels. These salts require so long a time to prepare them from the viscid juices, that they are rarely made with us.

Sal Fixium Absinthii.

Fixed salt of Wormwood.

Take any quantity of the wormwood, either fresh gathered, or gently dried, put it into an iron pan, and with a gentle fire reduce it into white ashes, which are afterwards to be boiled in a sufficient quantity of spring-water, so as to make a lye; filter the lye, and exhale it over a gentle fire, till a brown salt is left behind, which, by repeated solutions, filtrations, and evaporations, may be rendered pure and white.

In the same manner may be prepared

Sal Fabarum Stipitum.

Salt of Bean-stalks.

Sal Genista. Salt of Broom, &c.

The fixed salts of all vegetables, are at present well known not to differ from salt of tartar, or each other, when perfectly pure; the various appearance of their colour being only caused from a remainder of their oil, in consequence of an imperfect incineration; they may therefore be promiscuously used; or the purified salts of pearl-ashes, provided the pearl-ashes be free from the adulteration with common salt, may be substituted in their place.

B O O K III.

Of Metals and Metalline Preparations.

IT is a much harder task, in this part, not to say too much, than to say what is necessary. Many persons, who have chiefly given themselves up to the Chemical Pharmacy, have entertained such notions of mercuries, sulphurs, and other imaginary existences in the compositions of metals, that the shops are loaded with their volumes. And a serious pursuit of their reasonings would not only be the business of one's life, according to the usual age of man; but would also run a person into enthusiasm, if not distraction. And this contagion has raged ever since the expulsion of mechanical knowledge, and the usurpation of a spiritual kind of philosophy, propagated by the Sons of Fire: for by this title have the Furnace-Sages thought fit to distinguish themselves, until very lately. Of metals, the most obvious characters are their brightness, opacity, and gravity: but no less remarkable are their tenacity, ductility, fusibility, and their property of concreting by cold, after fusion, into their former state. All the metals, except platina, are fusible by means of fire. Gold and silver are unaffected by fusion; but, the other metals, if air be admitted to them whilst in a state of fusion, are gradually converted into a friable substance called Calx, which is destitute of the metallic appearance, and is much lighter,

in proportion to its bulk, than the metal itself. This change in their properties is generally accompanied with a considerable alteration in their medicinal virtues, *e. g.* Crude quicksilver seems inactive when taken into the body; but when it is calcined, it becomes a powerful alterative in very small doses, and an emetic, or a cathartic, or both in a little larger dose.

All metallic bodies dissolve in acids; some only in particular acids, as silver and lead in the nitrous; some only in compositions of acids, as gold in a mixture of the nitrous and marine; and others, as iron and zinc, in all acids. Some dissolve in alkaline liquors, as copper; and others, as lead, in expressed oils. Fused with a composition of sulphur and fixt alkaline salt, they are all, except zinc, made soluble in water.

All metallic bodies, dissolved in saline liquors, have powerful effects in the human body, though many of them appear in their pure state to be inactive. Their activity is generally in proportion to the quantity of acid combined with them: thus lead, which when crude hath no sensible effect, but when united with a small portion of vegetable acid into a ceruss, hath a styptic and malignant quality, which when united with more of the acid, as in the saccharum saturni, is yet more styptic and malignant: and mercury, with
the

the marine, acid becomes the corrosive sublimate, which is an active and speedy poison.

As to the preparations of metals, those only which are really useful are retained, and those we shall endeavour to account for, both as to their manner of preparation and medical virtues, upon such principles as are intelligible and convincing.

Preparations of Silver.

L. D. *Causiticum Lunare.*

Lunar Causitic.

Dissolve pure silver in about twice its weight of *Aqua Fortis* in a sand-heat; then the heat being increased, evaporate to dryness; afterwards melt the matter in a crucible, that it may be poured into proper moulds; carefully avoiding too great a heat, lest it grow thick beyond the just degree.

E. D. *Causiticum Lunare.*

Take of pure silver, flatted into thin plates, and cut in pieces four ounces, weak acid of nitre (a) eight ounces, and pure water four ounces.

Dissolve the silver in a phial by the heat of a sand-bath, and evaporate the solution to dryness, then put the mass into a large crucible, place them in a gentle fire, which must be gradually increased, until the mass flows like oil (b); on which it must be poured into iron pipes a little heated and greased; and lastly, put up for use into well closed glass bottles.

(a) In order to make the spirit of nitre sufficiently pure for perfectly dissolving silver, it ought to be prepared previously, as by the refiners, in this manner: take a small quantity of spirit of nitre, in which some silver is already dis-

solved, drop a few drops into the quantity of spirit of nitre designed to be purified; a white cloudiness will immediately appear, if the spirit of nitre hath in it the least mixture of any other acid; suffer this turbidness (which is the silver precipitated) to subside, which will soon happen; and then add a few drops more, and repeat the same method, till no turbidness appear on further addition, then pour off the spirit of nitre from the white powder, and it will be now perfectly freed from any spirit of vitriol, or sea salt, which was before mixed with it, and rendered the proper menstruum for the solution of silver.

(b) The preparation should be immediately removed from the fire, when it appears capable of being poured into the moulds; for if you wait till it ceases to emit fumes, the acid which gives the caustic quality will be expelled, and the virtues of the medicine, which consists alone in that, will be much impeded.

The solution will be most speedy, if the plates of silver are only turned round into spiral circumvolutions, so as to be conveniently put into the glass, with care that the several surfaces do not touch one another: for thus a greater extent of the surface is exposed to the action of the menstruum, than when the plates are cut in pieces and laid above one another. The crucible should hold five or six times the quantity of the dry matter, for it bubbles and swell up greatly, so as otherwise to run over: during this time, also, little drops are now and then spirted up, whose causticity is increased by their heat, and which the operator ought therefore to be on his guard against. The fire must be

kept moderate till this ebullition ceases, and till the matter becomes consistent in the heat that made it boil before : then quickly increase the fire till the matter flows thin at the bottom like oil, on which it must be poured into the mould.

This preparation is a strong caustic, and is used for consuming warts and other fleshy excrescences. Its use for making deep eschars or opening abscesses, is superceeded by the common caustic, which, where it can answer, is by far preferable, as the saline nature of this lunar caustic makes it spread its action to the great inflammation and injury of the parts around where it is applied, without a possibility of restraining it by defensive plasters, or other means.

Argentum, Silver.

Many medicinal virtues are attributed to this metal, in the diseases of the head, as to gold in those of the heart ; but they seem to have no foundation, besides the imagination of Astrologers and furnace Philosophers ; who fancied that the moon, whose influence they place this metal under, held a very friendly correspondence with the head ; as the sun does with the heart ; which therefore they make to be comforted by the solar metal, gold.

Preparations of Steel.

E. D. Ferri Limatura Purificata.

Filings of Iron purified.

Place the filings of iron on a coarse sieve, and draw them thro' it by moving under it a magnet.

This method fails if the filings are rusty ; it is also defective when bits of brass adhere to the iron. The rust of iron may be purchased

pure, and is the best of these preparations.

L. D. Chalabis Rubigo preparata. Prepared Rust of Steel.

Let steel filings exposed to the air be sprinkled with water, or vinegar, till they are changed into rust ; then beat them in a mortar, and water being added, wash over the finest part of them : expose again to the air what remains, and cannot be easily reduced to powder, and let it be sprinkled, pounded, and washed over, as before. The fine powder thus produced must be dried and kept for use.

This is the medicine formerly called, improperly, *Crocus Martis aperiens* ; but the supposition of an aperient quality in steel prepared by any method whatever, seems very groundless, and contrary to fact ; for this and the following preparations have similar qualities, and such only as are common to them, as steel ; of which see the article Steel.

The dose may be from ten to thirty grains. These medicines are most useful if given in small doses, and frequently repeated.

Dr. Willis's Preparation of Steel.

Take clean filings of iron, and cream of tartar in fine powder, of each a like quantity ; mix them well, and make them into a paste, with white wine. Then set them to dry in the sun, or other gentle heat ; break the mass, and if it has not acquired a greenish colour, powder it, moisten and dry it, as before.

This preparation is as opening as any which are made of this mineral ; and is conveniently enough administered

administered in boles or electuaries; for these preparations render pills so bulky, as to make a dose irksome. It also yields its virtues very readily in tincture, with wine or any proper liquor. Its dose is from ten to thirty grains.

E. D. Martis Limatura præparata.

Filings of Iron prepared.

Set filings of iron, first cleaned by the magnet, in a moist place, that they may turn to rust, which is afterwards to be ground into an impalpable powder. They may likewise be prepared by wetting them with vinegar.

Mars solubilis seu Chalybs Tartarizatus.

Soluble or tartarized Steel.

Take of iron unprepared and crystals of tartar, equal parts; rain-water sufficient to make the whole into a paste, which is to be formed into balls, baked in an oven, ground to powder, and again made into balls with fresh water, and baked as before: repeat the operation till the matter is capable of being easily ground into an impalpable powder.

This preparation is evidently taken from the foregoing of Dr. Willis, only more explicitly directed.

Mars Saccharatus.

Candied Steel.

Put any quantity of clean iron filings unprepared into a brass kettle, placed over a slow fire; pour to them by degrees twice their weight of sugar; boil them to the consistence of a candy, moving the kettle, so that the filings may be cased over with the sugar, and their cohesion prevented.

Mars cum Tartaro præparatus.

Iron prepared with Tartar.

Take equal quantities of filings of iron, and of common white tartar; put them into a crucible, and set it in a fire strong enough to make the materials red-hot; in which condition let them continue some time. Afterwards remove it, and when they are cool, powder them in a mortar; and what will not pass a fine sieve, heat so again, and again powder. And this repeat until all goes through. Mix the several siftings; and keep them in a vessel close stoppt from the air.

This is indeed more aperient than the former preparations; but that quality it receives from the tartar. The last burnings and sifting will be more difficult to perform than the first; because most of the tartar goes off then. It must be kept from the air, else it will run like the lixivial salts, on account of the tartar which is amongst it; and for this reason it is not fit to be prescribed in any dry forms, as powders. There are other ways of preparing this with tartar; but that here delivered seems most suited to answer the intention of an opener.

Mars cum Sulphur præparatus.

Iron prepared with sulphur.

Take equal quantities of the filings of steel, and flowers of sulphur; mix them together, and make them into a paste with water; and leave it to ferment for four or five hours: after which, put it into a crucible over a good fire, and stir the matter with an iron spatula. It will flame, and when the sulphur is burnt, it will appear black: but by raising and

continuing the heat, it will change to a red colour; which shews when it is enough.

That which the College have lately given under this title, is little else but sulphur; it being only common brimstone melted by a hot iron.

This is called also an aperient saffron of Mars: but the salts it receives from the sulphur, make it more fixed, and less opening than the former: and indeed there is not much difference between this and the astringent crocus, which follows.

L. D. Chalybs cum Sulphure præparatus.

Steel prepared with Sulphur.

Let steel made quite hot in the most intense fire be touched with a roll of brimstone, that it may melt and fall by drops into water placed under it, then let it be separated from the brimstone which falls along with it into the water, and afterwards reduced to the finest powder.

Mars Sulphuratus.

Sulphurated Iron.

Take any quantity of steel filings, with twice their weight of powdered sulphur, and with a sufficient quantity of spring water, make them into a paste, and let them ferment for six hours; then deslagrate the mixture in a crucible, continually stirring it with an iron spatula, by which it will become a very black powder. If it is exposed to a greater degree of heat so as to acquire a red colour, it is called

L. D. Crocus Martis aperiens.

If this is reverberated a long time in the most extreme degree of heat, it is called

Crocus Martis astringens.

Colcothar of virriol will very properly supply the place of both.

The distinction of these preparations into aperient and astringent, seems not to have the least foundation; the only real difference of all these preparations is, that those prepared by the corrosion of acids, are more likely to be so divided, as to find an easier passage into the habit.

All the foregoing preparations are good to raise the blood in poor weakly constitutions; if there be but strength enough to pass it, without disorders, through the first digestions. There is no kind of medicine more efficacious than these in cachexies, jaundice, and drop-sies; in many hysterical and hypochondriacal cases likewise, they are very effectual. They are convenient almost in any form, particularly in boles, electuaries, and pills. Their doses are from ten grains to half a dram, if not taken above once a day; but less, if oftener.

A restringent Preparation of Iron sold by the name of Colbatch's Styptic Powder.

Take any quantity of filings of iron, and pour upon them spirit of salt to the height of three or four fingers above them; let them stand in a gentle digestion till the fermentation is over, and the spirit of salt is become sweet; then pour off what is liquid, and evaporate it in an iron or glass vessel until half is consumed; at which time put to it an equal quantity of *Saccharum Saturni*, and evaporate to a dry powder. If upon its first becoming dry, the operation be stopt, it has exactly the appearance of Colbatch's powder; but if it be continued

continued longer, and the heat raised, it will turn red: it must be kept close stopt from the air.

If this is not kept close stopt, it will imbibe the air, and flow so as to lose its efficacy. I have been informed from very good hands, that this is the styptic with which there was so much noise made some time ago.

L. D. & E. D. *Sal Martis*. Salt of Steel.

Take of strong spirit or oil of vitriol eight ounces, steel filings four ounces, water two pints, mix them, and the effervescence being over, let the mixture stand for some time in hot sand; then pour off the fluid, and filter it through paper; and after due evaporation, set it to crystallize. Copperas purified by a fresh crystallization is often used as a substitute for this preparation. And indeed our species of vitriol scarce containing any metallic parts besides iron, is less unfit for this purpose than all others.

E. D. *Vitriolum Martis. seu Sal Chalybis*. Salt of Steel.

The same as the *Sal Martis* of the London Dispensatory.

The place of salt of steel prepared as above, is in general supplied by common English copperas, or green vitriol purified by filtering, and a careful recrystallization; nor is there the least difference betwixt them, except that a deficiency of the acid in the vitriol, which makes it turn brown if long kept, is avoided in the other: but this defect may be easily remedied, by adding a small quantity of oil of vitriol to the solution of the common vitriol intended to be purified.

The dose of *Sal Martis* is from three grains to ten.

The salt of steel is one of the most efficacious preparations of this metal; and not unfrequently used in cachectic habits to strengthen the viscera, &c. Ten grains dissolved in a pint of water may be drank at a time, divided into different doses: this quantity is not very disagreeable to the taste. If the dose is increased to half a dram or a dram, it generally purges gently, and promotes urine freely, especially if the patient walks in the cool air. These solutions are not contemptible substitutes for the natural chalybeate waters.

If the salt of iron meets with an alkali, it leaves its acid and becomes an astringent calx. Iron is useful when acids abound in the body, but is hurtful when the body is bileous or hot. When iron filings are taken, when the body is weak, languid, and abounds with acidity, the metal thus produces eructations as of garlic and putrid eggs, on account of the acid it meets with. And hence the heat, before wanting in the body, is excited, and the excrements generally turn black. In this case the powder of iron filings proves much more serviceable than the salt, or any other, though the most elaborate preparation.

Flores Martis. Flowers of Iron.

Take equal quantities of iron and *Sal Ammoniac*, and sublime them in an earthen cucurbit over an open fire, into a glass head, as long as any thing will rise. The flowers will be between a red and yellow colour.

These are also sometimes entitled in the shops *Flores Salis Ammoniaci Martiales*. They are reckoned very attenuating and aperient; and therefore are prescribed

in many obstinate chronic diseases, from obstructions; and in asthmas. From the residuum in the cucurbit some draw a tincture with spirit of wine; and this is called in the new London Dispensatory, *Tinctura Florum Martialium*. From the flowers also dissolved in warm water, and precipitated with *Ol. Tartari per deliquium*, is produced that powder which is called *Mars Diaphoreticus*; and by Zwelfer, *Sulphur Vitrioli Anodynum Martiale*. These flowers dissolved in spirit of wine, make the *Sedativum Archæi*, which Bates retains. But they are little used in the present practice.

Ens Veneris.

Take salt of steel one part, *Sal Ammoniac* two parts, and sublime as in making the *Flores Ammoniaci Martiales* preceding; and there will be at the top a collection of yellow flowers.

This is directed by the College with blue vitriol instead of the salt of steel; but by the most experienced in chemical Pharmacy, the latter is accounted much preferable.

It may seem mighty strange, that a preparation of steel or iron should derive its name from copper; but perhaps it being useful in distempers, which women are very subject to, might influence its inventor to give it the appellation it bears. However that may be, it is certainly a wonderful good medicine; not only in all intentions where chalybeates are prescribed, but also in hysterical affections, and all nervous disorders. It is much in extemporaneous prescriptions, from six grains to one scruple, and suits the form of a bolus best; for it is nauseous in a liquid, and makes pills swell and

crumble, except such as are made of the gums.

L. D. *Flores Martiales.* Flowers of Steel.

Take of washed colcothar or green vitriol, or of steel filings one pound, *Sal Ammoniac* two pounds; being mixed, sublime them in a retort, and remix what remains in the bottom of the retort with the flowers, by pounding them together; repeat the sublimation till the flowers acquire a beautiful yellow colour: to what remains after the last sublimation half a pound of *Sol Ammoniac* may be added, and the mixture sublimed as before; and this method may be repeated as long as flowers of a good colour can be produced.

This is one of the preparations formerly called *Ens Veneris*, of which there are two kinds. The one made of iron or its calx, and the other of blue vitriol, whose basis is copper; it has been disputed, from an ambiguity in the name of the vitriol that Mr. Boyle the inventor employed, which is the true preparation; but certainly, which ever ingredient is used, the sublimed matter must be *Sal Ammoniac* and steel, not copper, of which the least taint would be extremely distinguishable in its effects; and therefore iron or its calx cannot but be the most proper ingredient; though the Edinburgh Dispensatory have retained the following preparation of the *Ens Veneris*.

The success of this process depends principally upon the fire being hastily raised, that the *Sal Ammoniac* may not sublime before the heat is strong enough to enable it to carry up a sufficient quantity of iron. Hence earthen iron or vessels,

not glass ones, should be used; for if the retort is of glass, the fire cannot be raised quick enough without danger of breaking it. The most convenient vessel is an iron pot, with an inverted earthen jar luted to it; the jar should have a small hole at its bottom for the passage of elastic vapours. It is useful to mix the ingredients well, by moistening them with water, and then gently drying them; and so repeat the same two or three times or oftener. Thus the *Sal Ammoniac* may be increased to three times the quantity of the iron, or farther; and a single sublimation will often suffice to raise flowers of a very deep orange colour.

E. D. *Floris Martialis vulgo Ens Veneris.*

Take of the colcothar of green vitriol well washed, and afterwards dried, and *Sal Ammoniac*, each an equal quantity. Mix them well and let them be sublimed.

Extractum Martis.

Take eight ounces of the rust of iron, put it into an iron pot, and pour upon it three pounds of the water of honey, and four pounds of must, or the juice of white grapes perfectly ripe; add to it four ounces of the juice of lemons: cover it with an iron cover, and set it on a furnace with a little fire; leave the matter in digestion three days; then boil it gently for three or four hours, uncovering the pot every now and then, to stir up the bottom with an iron slice; then cover it again, that the moisture may not evaporate too fast. When you perceive the liquor to be black, you must take away the fire, and leave it a while to settle: pass warm through a cloth that which

is clear, and evaporate the liquor in a sand-heat, in an earthen pan, or glass vessel, to the consistence of an extract.

This may very conveniently be contrived to make other proper ingredients into pills; or may be itself made into that form, and taken from ten grains to half a dram, in case of obstructions, or where the opening preparations of steel are required.

L. D. *Lixivium Martis.*

Deliqueate Steel or Lye of Iron.

Let what remains in the retort after the sublimation of the steel flowers be placed in a moist place, and let the fluid which runs from it be preserved for use. This may be given in doses of a few drops in any convenient vehicle for the same purpose that the other chalybeates are recommended.

Some call this preparation *Oleum Martis per delequium*, and *Essentia Martis*. In doses of one or two drops it is given in any convenient vehicle, for the same intentions as other chalybeates.

L. D. *Vinum Chalybeatum.*

Chalybeate Wine.

Take of steel filings four ounces, cinamon and mace each half an ounce, Rhenish wine four pints; infuse a month without heat, often shaking the mixture; then filter.

Rhenish wine is an excellent menstruum for steel, and dissolves a considerable quantity of it. Here it is directed to be infused without heat, whence it is more agreeable to the taste; and what is of yet greater importance, the quality of the wine is preserved. Boerhaave extols this preparation as one of the best medicines with which he is acquainted,

acquainted, for promoting that power in the body by which blood is made, when weakened by a bare debility of the over relaxed solids, and an indolent cold aqueous indispotion of the juices: for in this case he says, no virtue of any vegetable or animal substance, no diet nor regimen can effect that, which is effected by iron. But it is hurtful, where the vital powers are too strong, whether this proceeds from the fluids or the solids.

Vinum Chalybeatum.

Take steel filings unprepared three ounces, cochineal half a dram, Rhenish wine a quart, digest in a sand-heat for ten days, then filter the wine for use.

This is prescribed from two drams to half an ounce in some convenient vehicle. It is often given in a chlorosis, *i. e.* green sickness, with good success. It is also of service in all cachexies and decays of natural heat in the blood; and is very suitably joined with the stomachic bitters in such cases.

L. D. Tinctura Martis in Spiritu Salis Marini. Tincture of Steel in Spirit of Salt.

Take of iron filings half a pound, Glauber's spirit of salt three pounds, rectified spirit of wine three pints; digest the iron filings in the spirit of salt, till all effervescence ceases, then, after the facès have subsided, evaporate the solution to one pound, and add to it the spirit of wine.

There appears to be some mistake in the directing the solution to be evaporated to one third; for in that case the quantity of fluid would be much too small to keep dissolved the salt formed from the

iron and the acid spirit; and consequently a precipitation of the far greater part would happen, attended with a proportionable waste and turbidness of the tincture.

The tincture of flowers of steel is the weakest, and this with Glauber's spirit of salt is the strongest of the tinctures of this metal. The dulcified spirit of salt dissolves but does not suspend it. These tinctures are all preferable to the calces and croci of iron, being both more certain and more speedy in their effects. The dose from ten to twenty drops three times a day.

E. D. Tinctura Martis.

Tincture of Steel.

Take the scales of iron prepared and powdered three ounces, spirit of salt enough to dissolve the powder; digest in a gentle heat, and when the powder is all dissolved, add as much rectified spirit of wine, as that the whole liquor may measure two pints.

L. D. Tinctura Florum Martialium.

Tincture of Flowers of Steel.

Take of flowers of steel four ounces, of proof spirit one pint, after digestion strain off the spirit.

These preparations are very improperly called tinctures, as they are in fact no other than solutions of iron in the acid menstruum, forming a *Sal martis*, which the spirit of wine no way changes or alters; and therefore as the addition of it has no useful effects, it would be much better omitted, and the solution alone substituted in its place. But there is no reason to believe that this kind of *Sal Martis* is better than that made with oil of vitriol.

The usual doses of these preparations are from ten to forty drops.

These

These tinctures differ from one another only in strength; and in all cases are highly preferable to the calces or croci.

L. D. *Tinctura Saturnina*, formerly
Tinctura Antiphthistica.

Take sugar of lead and green vitriol, each two ounces, rectified spirit of wine two pints; powder the salts separately, and then put them into the spirit, after which digest without heat, and filter the tincture through paper.

E. D. *Tinctura Saturnina*, vulgo
Antiphthistica.

Take sugar of lead one ounce and a half, of vitriol of iron one ounce, rectified spirit of wine one pint, extract a tincture without heat.

This tincture has been esteemed good in hectic fevers, as also in hysterical disorders; but certainly the internal use of all such medicines ought to be rejected, into whose composition the least quantity of sugar of lead enters; whose violent astringency on the kidneys and other glands, has frequently produced irremediable and fatal disorders, even where only very small quantities have been taken.

This is a tincture of iron with an uncertain portion of lead in it. The acid in the vitriol decomposes the sugar of lead, and renders it of no effect if it is wholly decomposed.

These are all the preparations of iron now in use; and notwithstanding they are greatly extolled by different practitioners, yet certain it is that the best and most efficacious method of exhibiting steel, is in its unprepared state, in the form of filings.

Ærugo Æris. Verdigrise.

This is no other than copper turned into a rust by the corrosion of the acid of grapes; the pressings of which are made to serve, by laying them between copper-plates: when the first rust is scraped off, fresh husks are laid upon the plates, till all the metal is so changed.

That which comes from France is much the best. It enters many external compositions, and is a good cleanser of sloughy and foul ulcers. It also keeps down proud flesh; and is very serviceable in destroying those cancerous specks, as the nurses call them, so apt to be troublesome in children's mouths; for which purpose, a little of it is mixed with honey, and gently rubbed upon the parts affected.

Le Mort made a tincture of copper, which some persons value themselves greatly upon; and many have pretended to be authors of a specific in gonorrhœas, which is nothing else. It is as follows:

E. D. *Cuprum Ammoniacum*.

Take of blue vitriol two ounces, and boiling water six ounces. Dissolve, and to the solution add, by little at a time, a sufficient quantity of the spirit of *Sal Ammoniac*, to precipitate the copper, and perfectly to dissolve it again into a fine blue liquor. The filtered liquor is to be evaporated to dryness in a broad shallow vessel placed over a gentle fire. Lastly, the fine blue concrete reduced to a powder must be kept in a well closed phial.

Tinctura Veneris. Tincture of
Copper.

Take verdigrise one drachm,
spirit

spirit of *Sal Ammoniac*, and rectified spirit of wine, each half an ounce: let them stand until they are of a deep sky-blue colour.

It makes an admirable injection for a gonorrhœa; and if care be taken, and skill enough acquired to know when the infection is only in the urethra, a person may be soon and infallibly cured by it. But it is advisable that beginners be not too busy with it.

Tinctura Veneris Volatilis. Volatile Tincture of Copper,

Take of copper-filings 1 dram; spirit of *Sal Ammoniac* 12 drams. Let them stand together in a close vessel, frequently shaking it, until the liquor is tinged of a beautiful violet colour.

This solution of copper hath been given internally in the dose of a few drops, as a diuretic. Boerhaave directs at first three drops to be taken in a morning fasting, with a glass of mead, and this dose to be daily doubled till it comes to twenty-four drops, which last quantity is to be continued for some days: he says, that by this means, he cured a person of a confirmed ascites, and that this medicine procured surprising discharges of urine: but that in another similar case it had no effect.

This tincture is a good substitute for the *Cuprum Ammoniacum*.

Plumbum. Lead.

This is called Saturn, from the planet under whose influence it is imagined to be. It is of a cold, drying quality, which makes those who work in it apt to be paralytic, and troubled with a strange kind of cholic.

Leinry observes, that lead serves to purify gold and silver; as the

white of eggs does syrups; that is, by joining with the gross and impure part of those metals, and separating them. This metal by itself is of no inward use in medicine; but in some preparations, and most of them too, have a place only among the topics.

L. D. *Aqua Sapphirina.*

Take of lime-water one pint; *Sal Ammoniac* one drachm; put them into a copper vessel, or any other, with a few bits of copper, till the water has acquired a blue sapphirine colour.

E. D. *Aqua Sapphirina.*

Fresh lime-water eight ounces, *Sal Ammoniac* two scruples, powdered verdigrise twenty-four grains. Mix, and after twenty-four hours, pour off the clear liquor.

This preparation is at present much used as a detergent of foul and obstinate ulcers.

Minium. Red-lead.

Take of lead any quantity, melt it in an unglazed earthen vessel, and stir it continually, till it changes into a blackish powder; which afterwards will become yellow, and at length very red, and will be then what is called *minium*, or red-lead. If this be urged with a violent heat, it runs into a vitreous substance.

Cerussa. Ceruse, or White-lead.

Take any quantity of very thin plates of lead, suspend them in an earthen vessel, containing a proper quantity of vinegar, in such a manner, that the vapour arising from the vinegar, may circulate about the plates; set the vessel in the heat of horse-dung for three weeks; and if, at the end of the three

three weeks the plates are not totally corroded, scrape off the white powder, and expose them again to the steam of vinegar, till the whole be reduced to a white powder. This preparation is now no part of the practice of Pharmacy, being either brought from abroad, or made here by persons who have large works: it is however necessary for those who use it for medicinal purposes, to guard against the adulterations almost universally practised by those who deal in this commodity: in order to which, the best method is to chuse the kind brought from abroad, and called white flake; and to prepare it themselves, by levigation and washing over; by which means they will avoid the adulteration of it, by adding whiting, practised by those who make white lead here; and that of the colourmen who prepare the flake by putting in starch.

L. D. *Plumbum Ustum.*
Calcined Lead.

Melt lead over a gentle fire, and stir it continually, till it becomes a powder.

These are all of a drying nature, and mixed with many of the officinal unguents and emplasters of that intention, with which they easily unite, and give them their chief consistence.

L. D. *Saccharum Saturni.*
Sugar of Lead.

Boil ceruse in distilled vinegar in a lead vessel, till the acid taste of the vinegar is changed to sweetness, then filter the vinegar through paper, and after a proper evaporation, set it to crystallize.

E. D. *Saccharum Saturni.*

Take of ceruse any quantity;

put it into a cucurbit, and pour thereon as much distilled vinegar as will rise four inches above it; digest them for some days in a sand-heat, till the vinegar has acquired a sweetish taste; then, having suffered it to settle, pour it off: add fresh vinegar to the remainder, and repeat the same process till the vinegar no longer attains any sweetness: then let all the solutions stand together for some time, and afterwards, being poured from the fæces, evaporate them in a glass vessel to the consistence of thin honey, when, being set in a cool place, they will shoot in crystals, which are to be dried in the shade. Exhale the remaining liquor to a pellicle, set it again in the cold, and more crystals will shoot; repeat this operation till no crystals can be any longer obtained.

It is indifferent, in regard to the salt produced, in what state the lead is used; but white lead is the soonest dissolved, as being already in part changed towards a saline state by the acid of the vinegar employed in its corrosion. Boiling is the most expeditious manner of making the solution; but if the mixture be suddenly brought to that heat, a great part of the acid will be exhaled before it can be fixed by its combination with the lead: this is prevented by the digestion in a sand-heat, but the gain in that view does not counterbalance the trouble and expence of a fire continued so long, unless where other purposes make it necessary; but both these inconveniencies are avoided by omitting the use of heat, and letting the mixture stand till the vinegar becomes sweet; which, if the vessel be frequently shaken, will be nearly

nearly as soon as in the heat of digestion.

That sort of ceruse, called flake-lead, is the best for obtaining the sugar of lead: for the corrosion, which it hath already undergone from the steam of vinegar, disposes it to dissolve more readily. It should be finely powdered before the vinegar is put to it, and during the digestion, or boiling, every now and then stirred up with a wooden spatula, to promote its dissolution, and prevent its concreting into a hard mass at the bottom. If a small quantity of rectified spirit of wine be prudently added to the solution as soon as it is duly exhaled, and the mixture suffered to grow cold by slow degrees, the sugar will concrete into very large and transparent crystals.

The sugar of lead found at present in the shops of the druggists and apothecaries, &c. is mostly brought from abroad, where it is made from oil of vitriol, instead of vinegar, and can therefore be afforded at a fourth part of the price it costs when prepared with distilled vinegar.

Sugar of lead is a most powerful astringent, and therefore used with great effect in many unguents, collyriums, &c. It has also a place in officinal compositions, and is used by some in extemporaneous prescription as an internal medicine; but such practice is certainly much to be condemned, as it is liable to produce all the terrible consequences that those deplorable objects experience, whose trades oblige them to be much concerned with lead in any form.

Extractum Saturni Di Goulard.

Goulard's Saturnine Extract.

Take as many pounds of li-charge of gold as quarts of vinegar (if the vinegar is made of French wine it is the better), boil them in a proper vessel, or rather simmer for an hour, or an hour and a quarter, stirring it often with a wooden spatula, then take it from the fire, let the whole settle, and pour off the liquor into bottles for use. If this liquor is made into the common consistence of an extract, it must boil yet longer, after its separation from the mass; it will then be of a reddish colour.

Goulard's Vegeto-Mineral Water.

Put two tea spoons full, or one hundred drops of Goulard's *Saturnine Extract* to a quart of water, and four tea spoons full of brandy. N. B. The quantity of the extract and of the brandy may be increased or diminished at pleasure.

This water is Mr. Goulard's universal specific in external inflammations, and particularly of the eye, in which case begin with it very mild, and increase so as to avoid irritation. Against fluxions on the tympanum, occasional deafness, in this case, to the drops of the extract, add twice the number of drops of camphorated brandy. For washing ulcers, cancers, scrofulas, contusions, phlegmons, erysipelas, piles, chilblains, whitloes, tetters, scalds, gangrene, &c.

It may be used in the form of wash, injection, pumping, bath, gargarism, &c.

Dr. Wall of Worcester says, that Goulard's Extract merits in a great degree the character that he gives

gives of it: that it relieves inflammatory and indurated tumours: that it is peculiarly useful in the hernia humoralis; that in recent strains, &c. if the extract is mixed with a small portion of rectified spirit of wine, it is of excellent use, abating the swelling and tension much sooner than the Spiritus Mindereri does, or than any other of the usual applications.

Preparations of Tin.

Stannum. Tin.

This has Jupiter for its governor, according to the old chemical enthusiast. It is very rare or never used in medicine unprepared; and there are but few instances wherein that management makes it taken notice of in the present practice.

L. D. *Stannum Pulveratum.*

Powdered Tin.

Let melted tin be poured into a proper wooden box, whose inner surface is chalked, and being shaken, part of the tin will be reduced to powder; let the rest, being again melted, undergo the same operation, till the whole quantity be converted to powder.

Calx Jovis.

Calcined, or Earth of Tin.

Take of tin any quantity, melt it in an unglazed earthen vessel, and keep it continually stirring with an iron spatula, till it is reduced to a dusky powder. This is reckoned the best destroyer of worms in the whole *materia medica*, and the only thing that will destroy the joint worm: it must be given in large doses; half a drachm is the least that should be given, twice or thrice a day.

Sal Jovis. Salt of Tin.

Take any quantity of calcined tin, (which is done exactly as lead) and put it into a matraass, with as much distilled vinegar as will rise four fingers breadth above it; let it digest three or four days and stir it in that time often. Then pour off the liquor, and put on more, three or four times. Filter all the liquors together, and evaporate about two thirds: Then let it stand in a cool place, and it will shoot into salt on the sides of the vessel. Evaporate the liquor again, and continue to repeat the same operation until all is obtained, just as in making the sugar of lead. N. B. The true salt of tin is extremely difficult and chargeable to make; that commonly sold for it by the chemists being prepared from potters glazing, and not differing from sugar of lead.

Sal Jovis. Salt of Tin.

Take of calcined tin any quantity; *Aqua Regia*, diluted with eight times its quantity of water, as much as will cover the calx to the height of some inches; digest them together in a gentle sand heat till the tin is dissolved; filter the solution through paper; evaporate, crystallize, and dry the salt for use. The calx which is left undissolved may be digested with a fresh quantity of *Aqua Regia*, as before, and the solution mixed with the liquor which remained after the first crystallization; whence, by a due evaporation, &c. a further produce of crystals may be obtained.

This is commended chiefly as a cosmetic in pomatums; but it is often given inwardly in nervous cases, and particularly in convulsions and epilepsies, from two

grains to eight. I have known two or three extraordinary instances, where the success should be ascribed to nothing besides this medicine. To young children it is apt to give a puke, which is never the worse. There is not a more efficacious anti epileptic. It is not indeed agreeable in any liquids, but passes down conveniently enough in a bolus.

Antiepilepticum Poterii.

Take of martial *Regulus* of antimony six ounces; of the best tin three ounces; melt them together in a crucible, and then pour them into a warm mortar greased; when the mass is cold, powder it, and add to it thrice its weight of the purest nitre; deflagrate the mixture in a crucible, throwing in a spoonful at a time; then calcine it for one hour; and, having afterwards again ground it to an impalpable powder, pour on it warm water, and wash it over till nothing remains but gross faeces; wash the fine powder thus obtained with repeated effusions of warm water, and dry it for use.

The colleges of London and Edinburgh, have rejected this medicine, and with great reason: for the good qualities attributed to it were extremely doubtful, and even improbable; but the hazard of its doing great harm, from some slight misconduct in its preparation, and in some cases, even when most judiciously prepared, is much more clear and certain. The authorized dose is from six grains to a scruple, to grown persons; for those who have ventured to use it, have seldom had the temerity to give it to children.

L. D. *Aurum Mosaicum.*

Mosaic Gold.

Take of tin one pound, flow-

ers of sulphur seven ounces, *Sal Ammoniac* and purified quicksilver, each half a pound; melt the tin, and add the quicksilver to it; when the mixture is become cold, powder it, and mix it intimately with the sulphur and *Sal Ammoniac*, and then sublime them in a matrass; the *Aurum Mosaicum* will be found under the sublimed mass, with some dross in the bottom of the matrass.

This preparation is left out of the last Edinburgh Dispensatory, and appears from proper experiments to be only the tin reduced to an impalpable powder, and coloured by the sulphur, of which nevertheless it retains but a small quantity: it is but little used in the present practice, and then chiefly to kill worms in children, which perhaps is the only instance wherein it can be serviceable. The dose is from four grains to a scruple.

Preparations of Mercury.

Purificatio Argenti vivi.

Distil the quicksilver in a retort, and then wash it well with water and salt, or vinegar.

The distillation of quicksilver in a retort is very difficult and hazardous, the heat of the condensed vapour seldom failing to crack the neck of the retort. The best method is that practised by the refiners, &c. which is, to insert obliquely a gun barrel into a round body of iron near the top, the end of which must be so bent, as to admit of its being immersed in a vessel of water; this body being charged with mercury, by a hole made in the top (which hole being afterwards secured with lute) may be placed on an open fire; the end

end of the pipe being immersed in the vessel of water, the distillation will be quickly performed without the least trouble.

L. D. *Mercurius sublimatus corrosivus, vel albus.* White or corrosive Mercury sublimate.

Take of purified quicksilver forty ounces; sea-salt thirty three ounces, nitre twenty-eight ounces, green vitriol calcined, sixty-six ounces; let the quicksilver be mixed in a vessel of stone or wood with one ounce or more of mercury sublimate already made, and broken into small grains; then let it be ground with the nitre, and afterwards with the sea-salt, till there is no longer the least appearance of the quicksilver; then add the calcined vitriol, in whose commixture the operation must not be too much prolonged, lest the quicksilver should revivify, or reassume its fluid state; lastly sublime the mixture in a glass matrass, to which at discretion a proper head may be fitted to save the spirit, which will rise in a small quantity.

This sublimate is a violent escharotic, and eats away proud flesh: half a drachm of it dissolved in a pound of lime water, turns it yellow; and is called phagedenic-water; which is used to wash ulcers, and some tetterous eruptions.

Mercurii Solutio.

Solution of Mercury.

Take of pure quicksilver and double *Aqua Fortis*, an equal quantity, digest them together in a phial placed in a sand-heat, till a limpid solution is made.

A very small part of the salt formed will remain dissolved, if, according to this process, double

Aqua Fortis be used: the addition of a sufficient quantity of water after the mercury disappears ought to have been directed, in order to procure a limpid solution; but when this is done (as in the process below for white precipitate,) preparatively to the calx, it is not necessary.

Calx Mercurii.

Calx of Mercury.

Take of the solution of mercury any quantity, evaporate it over a gentle fire to a white dry mass.

This preparation is very improperly called a calx, being in reality a salt of mercury, and indeed the most soluble of any that can be made of it.

E. D. *Mercurius sublimatus corrosivus.* Corrosive mercury sublimate.

Take of quicksilver and the weaker nitrous acid of each four ounces, calcined sea-salt and calcined vitriol of each five ounces. Dissolve the quicksilver in the nitrous acid, and evaporate the solution to a white mass and perfectly dry; afterwards add the salt and the vitriol. Powder and mix them well, then put them into a proper vessel, which may be filled to one half by them; place them in a sand-bath, at first with a gentle heat, afterwards let it be gradually increased till all the sublimate hath arisen.

The difference betwixt using *Aqua Fortis*, and calcined vitriol and nitre, is only in respect to expence and convenience; the *Aqua Fortis*, instead of being previously distilled, being produced from the two salts during the operation; they may therefore be promiscuously used, according to expedience; but if the salts be employed, the fire should be more intense,

and the apparatus consequently more defended, than if *Aqua Fortis* be used.

The Mercurius Corrosivus Albus.

The *Mercurius Corrosivus Albus* consists only of the mercury and marine acid, which are brought into combination only when they meet in a state of vapour. The addition of the sublimate ready made is to facilitate the extinction of the mercury, or its mixture with the other materials. To make the sublimate form a cake at the top of the vessel, when a large quantity is made, place the matrass no deeper in the sand than the surface of the matter contained in it; and removing a little of the sand from the sides of the glass, as soon as the flowers begin to appear in the neck; when the heat should likewise be somewhat lowered and not at all raised during the whole process. The sublimation is known to be completed by the edges of the crystalline cake, which will form upon the surface of the caput mortuum, appearing smooth and even, and a little removed from it.

This sublimate dissolved in proof spirit, is given in doses from a quarter to half a grain once or twice a day. Van Swieten dissolves 8 grains in 16 ounces of proof spirit; though the medicine is milder if dissolved in rectified spirit of wine. Of this solution, from two drams to an ounce is given twice a day in any convenient vehicle. Plentiful dilution with this medicine is necessary to prevent it from purging.

L. D. Mercurius dulcis sublimatus.

Calomel.

Take of corrosive mercury sublimate one pound; purified quick-

silver nine ounces; the mercury sublimate being first powdered, put it together with the quicksilver into a glass matrass, and digest them with a slow heat in sand, the glass being frequently shaken till they incorporate, then augment the heat, and sublime them; powder the sublimed matter; having freed it from the acrid upper part, and the globules of quicksilver, if any appear, sublime it again: the sublimation must be six times repeated.

E. D. Mercurius sublimatus dulcis.
Mercurius dulcis and Calomel.

Take of corrosive mercury sublimate, powdered in a glass mortar, four ounces, of pure quicksilver three ounces and a half, mix them intimately in a mortar till the quicksilver ceases to appear, put the powder in an oblong glass body, of such size, that only one third may be filled, set it in a sand furnace, whereof the sand may reach up half its height. By degrees of fire successively applied almost all the mercury will be sublimed, and adhere to the upper part of the glass, which being broken, and the red powder which is found in the bottom, together with the whitish hanging about the neck, being thrown away, let the white mercury be again sublimed three or four times.

If this operation be repeated seven times the preparation is called calomel, or *Aquila Alba*.

It may be much doubted whether repeated sublimations are of any advantage to this medicine; since the corrosive quality of the sublimate, which depends on the acid it contains, is corrected, not, as has been asserted, by the spicula being broken by the triture and heat,

heat, but by being neutralized with a due quantity of mercury, and thereby rendered inactive : it seems therefore more material to regard the trituration after the first sublimation ; that no part of the sublimate which rose first, without being conjoined with the due proportion of the mercury, may possibly escape in the second sublimation ; this, if it be effectually done, may produce as perfect calomel as any number of sublimations whatever.

Calomel, when properly prepared, is, whether we regard it in respect of its safe or certain operation, the best mercurial medicine Pharmacy has hitherto produced : and indeed if we consider, in what the preparation of mercury designed for internal use, consists, we may believe it to be as perfect a medicine as that simple is capable of being rendered, and may alone answer all the intentions of it, when used as an internal medicine, except that of an emetic, in which case Turpeth mineral must be substituted. The general qualities of mercury are before given in treating of it as a simple. The particular manner of administering calomel is either as an evacuant or alterative, and these general intentions demand likewise to be considered, as being of several kinds. As an evacuant, calomel may be either salivant, cathartic, or diaphoretic ; when given in order to raise a salivation, the dose may be one scruple every night, till the spitting is begun ; the use of purgatives or whatever may conduce to promote a looseness being cautiously avoided : but this use of it is now much neglected : the method of unction having superseded it. When given as a cathartic, it is

necessary to join therewith some other medicine of that kind, in order to determine with more certainty its action to the intestinal glands ; and the dose may then be ten grains, a subtraction of half the usual dose being made from the purgative joined to it. As a sudorific, it is necessary likewise to take the aid of guaiacum, and to suffer a constant confinement to a warm room, as long as the diaphoresis is to be supported : the use of mercury in this view, is only, where a continual and gentle increase of perspiration is required, and not a copious sweat, to produce which it is not at all fitted ; and indeed the benefit of this practice in most cases depends rather on determining the mercury to the skin, in order to its specific action there, than on the secretion excited by it. The dose in this case may be three grains every day, taking along with it one drachm of extract of guaiacum twice a day, and rigorously observing the above given direction, to keep continually in a warm room. If this method is complied with, inveterate cutaneous poxes, which resist salivations, and all other means at present in practice, may be radically cured ; as may also leprous, habitual scorbutic eruptions, and almost all diseases of the skin. When calomel is given as an alterative, its dose may be from two to ten grains ; but if the greater extreme be used, it is necessary to take a gentle cathartic once in three days, to prevent its forcing a passage through the salival glands, and even, if the lesser doses are taken continuedly, the same use of cathartics must be observed at proportionable distances.

E. D. *Cinnabaris Facilitia.*
Artificial Cinnabar.

Take of purified quicksilver 3 pounds and a half, washed flowers of sulphur one pound. Melt the sulphur in a large iron vessel, over a gentle fire, and add to it by degrees the quicksilver previously heated, stirring them constantly together with an iron spatula, that they may be perfectly mixed. Immediately fit upon the vessel a wooden cover, to prevent the mixture from taking fire; before the matter is grown cold, grind it into powder, and sublime it in a proper vessel.

This makes the common vermilion of the shops, used chiefly in painting. There is a secret in making this to perfection; and it lies chiefly in contriving the subliming vessel of a proper height, and working very expeditiously, with a quick fire.

L. D. *Cinnabaris Facilitia.*
Facilitious Cinnabar.

Take of purified quicksilver twenty-five ounces, sulphur seven ounces; melt the sulphur, and add the quicksilver to it, and if the mixture take fire, extinguish it by covering the vessel; afterwards let the mass be reduced to powder and sublimed.

Mercurius resuscitatus.

Mercury revived from Cinnabar.

Take cinnabar one pound, calcined tartar or pot-ashes one pound, *Calx Viva* two pounds; grind these well together, and put them into a retort; leaving, at least, one part in three empty. Place it in a reverberatory furnace, and fit to it a receiver: let it stand twelve hours; and then kindle a fire; increasing it gradually to the fourth

degree; keep it so till the mercury is all come over into the receiver; which will be in seven or eight hours time: then wash away the filth, and strain the clean mercury through a clean napkin into an earthen dish.

The two processes are not of any great moment in themselves; the first being not used, or very little, in any prescription; and the other designed for the highest purification of mercury; which thus revived, is preferable to any other for many purposes. The mercury joined so with the saline parts in the sulphur, and rising with them in a cinnabar, depends upon the same disposition and mechanism of parts, as was before taken notice of in sublimate. In the first operation the mercury is best set in a chimney while the sulphur is mixing with it, to give vent to the stench; for its fumes are very offensive. And the sulphur is to be kept but just hot enough to remain fluid, until all the mercury is mixed, lest it should carry away any of the mercurial particles along with the fumes. In the last process, the reason why the mixture is to retain so long before it is put to the fire, is to give time to the alkaline matter of the calx, gradually to ferment with the sulphureous particles which hold the quicksilver. And by this means likewise the retort is secured from being broke; because the sudden rarefaction of the mixture, by immediately applying the heat to it, would make it fly. Some put water in the receiver.

Mercurius Precipitatus corrosivus rube. Red corrosive Precipitate of Mercury.

Take crude mercury and of compound

compound *Aqua Fortis* equal parts, let these stand in the heat of ashes, in an open upright glass, shaped like the Hungary-water phials, until the flowers begin to appear, and the mercury seems all dissolved into a white mass: then gradually increase the fire to the third degree, and so keep it till it turns of a deep red: then take it away; let it cool, and break the phial to get out the precipitate, which will look of a most beautiful bright colour.

The marine acid in the compound menstruum, disposes this preparation to assume the bright sparkling appearance admired in it, which, tho' of no advantage as a medicine, is yet a mark of its goodness and strength. As soon as it gains this appearance, remove it from the fire, otherwise it will soon lose it again. This medicine is subject to great uncertainty in point of strength; more or less of the acid exhaling, according to the degree and continuance of the fire. The best criterion of its strength is its brilliant appearance; which is also a mark of its genuineness. If mixed with minium it hath a duller hue.

The precipitate thus made (tho' very improperly so called) will weigh eighteen ounces; so that the mercury gains two ounces by the addition of the saline parts of *Aqua Fortis*. This is rarely given inwardly, but by empirics, and ignorant bold persons. It is a good escarotic, and much used among the surgeons for that purpose in basilicon, and other dressings: as it is also in unguents for the itch, and other cutaneous foulnesses; it is to be used with caution.

L. D. *Mercurius corrosivus ruber*, Red precipitate, the same as the preceding.

E. D. *Mercurius corrosivus Ruber*, vulgo *Præcipitatus ruber*. Red Precipitate.

Take of quicksilver and of the weaker nitrous acid, of each one pound. Dissolve the quicksilver, and over a slow fire evaporate the solution into a white dry mass; which being powdered, and put into a glass cucurbit, is to be calcined in the fire gradually augmented, until a little of it taken out by means of a glass spoon, and cooled, resembles bright shining red scales. The matter must be diligently stirred about with a glass stick, that all the parts may be equally calcined, and the intended change is thro' the whole completed; on which, the vessel must be removed from the fire.

Pulvis Principis. Prince's Powder.

Take of the foregoing precipitate half a pound; grind it very well upon a marble or porphyry stone; put it into a cucurbit with two quarts of water; place it in a sand-furnace, and give it a fire to make it scalding hot; let it stand so twelve hours, stirring it about once in two hours: then let it cool, and decant the water. Put this precipitate into water a second time, and a third, repeating the operation as before. Then dry the precipitate, and grind it with double its weight of the salt extracted from the residue of the *Tinctura Metallorum*: put them into a cucurbit with water; proceeding in all things as above, till the precipitate remains insipid; then dry it, and boil it in spirit of wine; decant the spirit when cool, and dry the precipitate.

This is emetic and cathartic; and is prescribed in venereal and chronic cases. The dose is from

three grains to half a scruple. The several ablutions serve only to lessen the quantity and pungency of the salts, which the precipitate received, in making, from the *Aqua Fortis*; and so to render it milder in its operation.

Panacea Mercurii rubra.

Take any quantity of red precipitate; put it into a cucurbit, with eight times its weight of spring water; let it stand in a heat of sand twenty-four hours, shaking it three or four times; pour off the water, and keep it for use. Then dry the precipitate, and pour to it eight times its weight of spirit of wine; fit a glass to the mouth of the cucurbit; lute it well, and set it in a gentle heat. Let it continue there fifteen days; shake it often, and after it is cool, pour off the spirit of wine, by decantation. Then take the precipitate, and put it in a china dish, with twice its weight of tincture of sulphur; set it on fire, and burn off the tincture; and then put on fresh spirit of wine: let it stand in a very gentle heat two or three hours; and after it is settled, decant: dry the precipitate, and put it up for use.

This is by some mightily esteemed in venereal cases: it works by stool, but will sometimes vomit. Its dose is from three to twelve or fifteen grains.

Panacea Mercurii alba.

Grind calomel to a very fine powder, and put it into a cucurbit, with eight times its weight of spirit of wine: place it in warm sand; let it stand fifteen or twenty days, and shake it every day two or three times. Then fit a glass to the mouth of the cucurbit, and

make it a circulating glass. Separate the spirit either by decantation or distillation; and dry the powder in a gentle heat.

This is yet milder than calomel; and therefore may be ventured in larger doses as a cathartic, especially to children; it has the same virtues with that.

Lemery gives us a mercurial *Panacea* in the last edition of his *Course of Chemistry*; which he calls violet mercury; but it seems too tedious to be worth making; and is after all little other than an *Æthiops*; being quicksilver incorporated with *Sal Ammoniac* and sulphur. The same author also prescribes a *Panacea* not much unlike the preceding, but more elaborate; and no ways excelling it in virtue. He has also multiplied his precipitates; but I cannot see it worth the while to follow him in any of them: and the shops seem already sufficiently supplied with such medicines.

L. D. Mercurius Præcipitatus albus.

White Precipitate of Mercury.

Take of *Sal Ammoniac* and corrosive sublimate, each an equal weight; dissolve them together in water, filter through paper, and precipitate with a solution of any fixed alkaline salt; wash the precipitated powder till it is perfectly sweet.

The solution of alkaline salt should be added by degrees, with great care; the least excess in the quantity destroys the colour of the precipitate; a small part should be therefore reserved from the whole to be added after the alkaline salts and by this means the colour may be recovered, though the above mentioned error should happen.

There

There are two kinds of preparations which have gone under the name of white precipitate; as we see in the preceding processes: which may very probably produce inconveniencies to the public. For though this kind may answer most of the purposes of medicine in regard to human subjects; yet the farriers, who have depended on the common white precipitate, in their application of it, and used it as an escarotic, will be hereby misled, and use as a corrosive a substance perfectly inactive, for such the sweet precipitate most evidently is, the mercury being deprived of the acids by the alkaline salts. The college of Edinburgh have therefore acted much more judiciously in admitting both, and distinguishing this by the name of sweet, which very properly expresses its nature.

E. D. Mercurius Præcipitatus albus.

White Precipitate of Mercury.

Take of corrosive Mercury sublimate any quantity, dissolve it in hot water; gradually drop into the solution some volatile spirit of *Sal Ammoniac*, as long as any precipitation follows; wash the white precipitated powder upon a filter with several successive quantities of warm water; and afterwards dry it for use.

Sublimate in general suffers solution in water with extreme difficulty, and where the acid happens to be deficient, scarcely at all: on this account the college of London have ordered an equal quantity of *Sal Ammoniac* to be added; but if warm water be used, much less may answer the purpose. This precipitation will suffer washing without losing any part of the proper precipitate.

These precipitates are now rarely employed as internal medicines; calomel answering all the intentions wherein they might be given, with much more certainty and safety. Their principal present use is in unguents, particularly for the itch and other cutaneous disorders.

L. D. Mercurius emeticus flavus.

Yellow emetic Mercury, or Turpeth Mineral.

Put any quantity of quicksilver into a glass, and pour on it double its weight of strong spirit or oil of vitriol; heat the mixture by slow degrees till it boils, and continue it in that state till only a white mass is found at the bottom; which, the fire being increased, must be made perfectly dry: this mass, on the pouring water to it, will immediately turn yellow and fall to powder; let it be ground with this water for a considerable time in a glass mortar, and after the powder has subsided the water must be poured off, and successive quantities added, till it is entirely sweet.

The dose of this is from two to six grains: it is too rough for children; but safe enough to grown persons. This, as indeed all preparations of the same kind, which are ponderous, and given in little quantity, ought not to be exhibited in liquors; where they so suddenly fall to the bottom, as to be difficult to take: but in boles, with conserve of roses, or some such thing, they are neither inconvenient nor unpleasant. The turpeth is accounted the most efficacious of all the mercurial preparations, in venereal cases; it works smartly upwards, and will sometimes of itself raise a spitting, if
a cathartic

a cathartic be not given soon after it. In virulent gonorrhœas, and where the humours flow much to the privy parts, it is of great service; particularly in the *fumia veneris*, *phymosis*, or *paraphymosis*, when in a high degree, but must be used with great care, and particularly not to take cold. The most obstinate leprogies generally yield to it. The water with which it is washed, is by some used for the itch, and other cutaneous deformities; in which it does much good, if the patient is not too busy with it; for it is so loaded with saline spiculæ as not to be inferior to a poison, if much of it should get into the pores.

This preparation was some time ago offered to the public as a remedy against the bite of a mad dog, and is said to avail even after the symptoms begin to appear. The manner of administering it in these cases, is, to give two grains of turpeth every fourth hour with one drachm of cinnamon, by which method, it is said, a brisk salivation will be raised at the end of sixteen hours. A sufficient number of cases have not yet occurred, to shew the certainty of this practice in regard to human subjects, but it is clear from unquestionable experience, that dogs may be almost infallibly cured by it.

E. D. *Mercurius flavus, vulgo Turpethum Minerale.*

Yellow Mercury, or Turpeth Mineral.

Take of pure quicksilver, four ounces; rectified oil of vitriol, eight ounces: having mixed them carefully, distil them to driness, in a retort placed in a sand-furnace; the white calx which is

found at the bottom being ground to powder, and thrown into warm water, immediately becomes of a yellow colour; wash this in renewed quantities of water till it has lost its acrimony; then dry it for use.

Care should be taken, when the oil of vitriol begins to bubble, to steadily keep up the heat, without at all increasing it, till the ebullition ceases, when the fire should be augmented to the utmost degree, that as much as possible of the redundant acid may be expelled. A calx may be made from less than an equal weight of the oil, if it be good.

Mercurius Præcipitatus viridis,
Green Precipitate of Mercury.

Dissolve four ounces of the mercury sublimatæ (previously powdered) in a quart of hot water: digest an ounce and a half of copper filings with eight ounces of volatile spirit of *Sal Ammoniac* in a matrafs, till a deep blue tincture is extracted: filter this tincture, and drop it by degrees into the solution of the sublimatæ; after the precipitate has subsided, evaporate to driness in a sand-heat.

This medicine is at present with much reason disused; for the copper must certainly render it an emetic too violent to be hazarded.

L. D. *Mercurius calcinatus*
Precipitate per se.

Let purified quicksilver be placed in a sand-heat for several months, in a proper glass with a small hole by which the air may have access; let it remain till it is calcined into a red powder.

A very wide mouthed flat bottomed glass body, of such a height that

that the mercury may not escape, is to be preferred; for thus the air, which is necessary to the calcination, will be more freely admitted. If the vessel is so contrived that a continual flux of air may pass over it, it will be so much the better.

This preparation is by some highly esteemed in venereal cases, and supposed to be the most efficacious and certain of all the mercurials. It may be advantageously given in conjunction with opiates: a bolus or pill, containing from half a grain to two grains of this calx, and a quarter or half a grain or more of opium, with the addition of some warm aromatic ingredient, may be taken every night. Thus managed, it acts mildly, though powerfully, as an alterative and diaphoretic: exhibited by itself in larger doses, as five or six grains, it proves a rough emetic and cathartic,

L. D. Mercurius Corallinus.

Pour to red corrosive mercury about three times its weight of rectified spirit of wine, and digest them for two or three days in a gentle heat, often shaking the vessel; then fire the spirit, and continually stir the powder, till the spirit is burnt out.

Here the corrosive becomes somewhat milder, a part of the acid being dissipated by the heat of the burning spirit; (whether the spirit takes up any in the digestion, is greatly to be doubted;) the preparation nevertheless seems to be scarce sufficiently safe for internal use: a few grains of it generally prove cathartic or emetic, and sometimes occasion violent symptoms.

L. and E. D. Æthiops Mineralis.

Take flowers of sulphur, and clean crude mercury, of each equal quantities; grind them together in a glass or stone mortar, till they are incorporated into a black powder.

The Edinburgh Dispensatory also orders another with double the quantity of Mercury.

There are other ways of making it by deflagration; but this is the most simple and natural, and therefore to be preferred; unless, for expedition, the sulphur be melted, and the mercury stirred into it. The rubbing in the first way ought to be continued five or six hours; else the mercury will not be sufficiently mixed. This is a safe medicine, and may be given to young children for worms, and all crudities and acrimony of the humours. Its dose is from ten grains to one drachm.

Æthiops Antimonialis.

Antimonial Æthiops.

Flux equal quantities of antimony and sea salt together in a crucible one hour; then let the matter cool, break the crucible and separate the scoria; afterwards rub the regulus thus obtained, with an equal quantity of mercury, till they are incorporated.

This medicine is highly recommended by some as being of the greatest efficacy in scorbutic and scrophulous cases, as also in all glandular obstructions and many chronical cases out of the reach of common medicines; and it is likewise said to avail more than any other medicine in cancerous humours, and obdurate venereal cases; the allowed dose is a scruple,

ple, but smaller quantities are advised to be first taken.

Mercurius Alcalifatus.

Alcalized Mercury.

Take of purified quicksilver three drams, prepared crabs-eyes 5 drams, rub them in a glass mortar, as in the preceding preparation,

This medicine has been some time in use, and though excluded the two last editions of the Edinburgh Dispensatory, after having had a place in the former, is now much regarded, especially in scorbutic cases; in regard whereof I have lately seen an eminent instance of its efficacy, even where other mercurials had failed; it is equally proper in all other cases, where mercurial alteratives are wanted. The dose may be from five grains to a scruple, gentle cathartics being joined with it.

E. D. *Antimonium Preparatum.*

Prepared Antimony.

Powder crude antimony as fine as possible in an iron mortar; then on a porphyry levigate it with a little water to a subtil powder; after which dry it on a chalk stone, then on paper placed where the atmosphere is warm and dry.

If crude antimony is reduced to an exquisitely fine powder, its efficacy as a medicine is considerable, if it is but coarsely levigated it only stimulates the first passages to eject it.

E. D. *Regulus Antimonii Medicinalis.*

Medicinal Regulus of Antimony.

Take of antimony, five parts; common salt four parts; salt of tartar, one part. Grind them together, and inject the mixture into a red hot crucible, and when it flows sufficiently thin, pour it into

a cone, smoked and heated: gently shake the cone, or strike it on the sides, that the regulus may sink to the bottom. This regulus, freed from the scoræ, appears bright like polished steel; powdered, it assumes a reddish or purple colour.

This medicine is similar in quality to one made with one eighth of nitre. In both processes, the antimony is freed from a small portion of its sulphur, which is dissipated in flame by the nitre, and absorbed by the alkaline salt. This preparation is greatly celebrated by Hoffman, and other German physicians, in sundry obstinate chronic disorders, and esteemed one of the best antimonials that can be given with safety as alterants: it operates chiefly as a diaphoretic, and sometimes, though rarely, proves emetic. The dose is from three or four grains to twenty.

This regulus, reduced into a subtil powder, is the genuine FEBRIFUGE POWDER of *Craanius* (*Pharm. Borussæ-Brandenburgæ*, edit. 1734, pag. 107.) and has been greatly commended in all kinds of fevers, both of the intermittent and continual kind. (*Pharm. Argent.* 1725, pag. 252.) A dose or two have frequently removed these disorders, by occasioning either a salutary diaphoresis, or acting mildly by stool or vomit. The colour of the levigated powder is a purplish brown. The antimonial emetic of Boerhaave already mentioned, which is white, is nearly similar to it.

The common salt is of no farther use in the process, than as it serves to promote the fusion; and even for this it is not necessary. The medicine proves rather more mild and certain in operation, if prepared without it.

Regulus Antimonii.

Regulus of Antimony.

Take antimony, nitre, crude tartar, of each equal parts. Grind them separately into a powder; then mix, and rub them all together. Inject the powder, at several times, into a red hot crucible, taking care to break the crust, which forms on the surface, with an iron rod: when the detonation is over, let a strong fire be made, that the matter may flow like water, then pour it out into a warm greased cone, which is to be gently struck on the sides, that the regulus may separate and fall to the bottom; when grown cold, let the regulus be cleared from the scoriæ that lie a top of it.

In this process, an alkaline salt is produced from the nitre and tartar, in such quantity as entirely to absorb the sulphur of the antimony: the alkali, thus sulphurated, will take up more or less of the reguline part, according to its quantity, and the continuance of the fusion.

As the ingredients are above proportioned, the yield of regulus proves extremely small, and if the fusion is long continued, scarce perceptible, almost the whole of it being taken up into the scoriæ: in order to obtain the largest quantity, the nitre ought to be diminished one half. It is convenient to rub the nitre and tartar together, and deflagrate them in an iron ladle or pan, before their mixture with the antimony; for by this means the loss of some part of the antimony, which otherwise happens from the vehemence of the deflagration, will be prevented, a smaller crucible will serve, and less time and labour complete the process.

The mixture of nitre and tartar deflagrated together, will reduce any of the antimonial calces (as the diaphoretic antimony, ceruse, or antimony calcined by itself) into regulus; the oily matter of the tartar supplying the inflammable principle, which all calces require for their revival into a metallic form; and the alkaline salt promoting their fusion. It is the common reducing flux of the chemists; by whom it is called, from its colour, the black flux. The largest yield of regulus, hitherto obtained from antimony, has been got by calcining it without addition, as directed hereafter for making glass of antimony, and reviving the calx by fusion, with this, or other like compositions. Mr. Geoffroy, who first communicated this method to the French academy, seems to look upon soap (the substance he happened to make use of himself) as the only one that will succeed: but the effects of this are not different from those of the foregoing flux. Both consist of an alkaline salt, and an inflammable, (not sulphureous) substance, which are the only materials here necessary.

Regulus Antimonii Martialis.

Martial Regulus of Antimony.

Take antimony, nitre, crude tartar, of each one pound; small pieces of iron, half a pound. Heat the iron in a crucible to a white heat: then gradually add the other ingredients, first powdered and mixed together, and proceed in the same manner as in the foregoing process.

The nitre might here be diminished to one fourth its weight, and the tartar to half that quantity. The pieces of iron may be small

small nails; the filings of the metal, lying closer together, are not so readily acted upon by the antimony.

Regulus Antimonii Stellatus.

Stellated Regulus of Antimony.

This is made by melting the martial regulus several times with fresh nitre and tartar.

The simple regulus of antimony is more readily made to exhibit a starry appearance on its surface than the martial; which it will also do by one, as well as by any number of fusions: the phenomenon entirely depends upon the regulus being pure, brought into extreme thin fusion, and cooled slowly in the cone, without shaking or moving it.

The three foregoing *reguli* are at present rarely, if ever, made use of in medicine: the emetic cups, and perpetual pills, formerly made from them, have long been laid aside as precarious and unsafe. The scoræ, produced in the several processes, afford medicines less violent, some of which are in considerable esteem. These scoræ consist of the sulphur of the antimony united with an alkaline salt, and a part of the regulus taken up by this compound, and rendered soluble in water.

E. D. Sulphur Antimonii Præcipitatum, vulgo Sulphur Auratum.

Golden Sulphur of Antimony.

Take of the *Caustic Lixivium* four pounds, water three pints, and two pounds of finely powdered antimony. Boil them in an iron pot, on a gentle fire, for three hours, continually stirring it with an iron spatula, adding water as required. Strain the hot *lixivium* through a

double linnen cloth, and whilst it is yet hot, drop into it, by little and little, the weaker acid of nitre a sufficient quantity to precipitate the sulphur, which must be carefully washed with warm water.

L. D. Sulphur Antimonii Præcipitatum.

Precipitated Sulphur of Antimony.

Take of antimony, sixteen ounces; tartar, a pound; nitre, half a pound. Let these be reduced separately into powder; then mixed; thrown by degrees into a red hot crucible, and melted with a strong fire. Pour out the matter into a conical mould; the metallic part, commonly called regulus of antimony, will sink to the bottom, the scoræ swimming above it. Dissolve these scoræ in water, filter the solution through paper, and precipitate the sulphur by dropping in some spirit of sea salt: lastly, wash the sulphur from the salts, and dry it for use.

These preparations are not strictly sulphurs: they contain a considerable quantity of the metallic part of the antimony, which is reducible from them by proper fluxes. That made by the first of the above processes contains the greatest part of the semi-metal; for as we have already seen, very little, sometimes scarce any at all, separates in the fusion. The quantity of regulus taken up in the second also will be different, according to the degree of fire employed, and the length of time that the fusion is continued. These medicines, therefore, must needs be liable to great variation in point of strength, and in this respect there is not perhaps any of the antimonials more precarious; notwithstanding

standing the assertion in a former edition of this work, that they are the most certain of them.

These preparations prove emetic when taken on an empty stomach, in a dose of four, five, or six grains; but in the present practice, they are scarce ever prescribed in this intention; being chiefly used as alterative deobstruents, particularly in cutaneous disorders. Their emetic quality is easily blunted by making them up into pills with resins or extracts, and giving them on a full stomach: with these cautions, they have been increased to the rate of sixteen grains a day, and continued for a considerable time, without occasioning any disturbance upwards or downwards. As their strength is precarious, they should be exhibited at first in very small doses, and increased by degrees according to their effect.

A composition of the *sulphur auratum*, with *mercurius dulcis*, has been found a powerful, yet safe, alterative, in cutaneous disorders; and has completed a cure after salivation had failed: in venereal cases likewise, this medicine has produced excellent effects. A mixture of equal parts of the sulphur and calomel (well triturated together, and made into pills with extracts, &c.) may be taken from four to eight or ten grains, morning and night; the patient keeping moderately warm, and drinking after each dose, a draught of a decoction of the woods, or other like liquors. This medicine generally promotes perspiration, scarce occasioning any tendency to vomit or purge, or at all affecting the mouth. See the Edinburgh Essays vol. I. and the *Acta natx. curios.* vol. V.

Kermes Mineralis, sive Pulvis Carthusianorum. Kermes Mineral or Poudre des Chartreux.

Take of antimony four pounds; solution of fixed nitre *per deliquium*, one pound; rain water, three pounds; boil them two hours, and then filter the boiling decoction through paper; let it stand at rest twenty-four hours, and it will let fall a yellowish or saffron-coloured powder, the fluid becoming clear. This fluid being then poured off by inclination, the powder must be washed by repeated affusions of warm water; and four ounces of spirit of wine being burnt upon it, afterwards dried and kept for use.

This preparation is in fact only a sulphur of antimony, and perhaps differs very little from that made by the common processes, to which however this is to be preferred, as being more readily performed. It is a most efficacious deobstruent, and therefore extremely useful in serophulous, obstinate scorbutic, and all such cases as arise from glandular obstructions; as likewise in chloretic, cachectic, and hysterical habits, where the vitiated crasis of the blood has impaired the *vis vitæ*, and debilitated the secretive powers: it has been recommended also in fevers; but the use of medicines of this class is not yet enough authorised by experience to render such a practice eligible. The doses given have been from one grain to four, but it is best to begin first with the smallest dose, especially with young persons, as the force of its operation varies greatly in different constitutions.

E. D. *Vitrum Antimonii.*

Glass of Antimony.

Take of crude antimony reduced

to a sand like powder; spread it on a shallow unglazed earthen vessel, and place it on a gentle fire, that the antimony may be moderately heated; this powder should be diligently moved about to prevent its running into lumps. The sulphur rises in white vapours, as these decrease, increase the fire that more vapours may be produced, and so go on, until the powder being urged by a red hot fire produces not any more vapours. Melt the calx in a crucible placed in an intense fire, until it appears like a liquid glass; then pour it out upon a heated tile or brass plate.

This is also called stibium. It is the strongest emetic of any preparation of antimony. It is too rough to take in substance, though some allot its dose from two to eight grains.

E. D. *Vitrum Antimonii ceratum.*
Glass of Antimony prepared with Wax.

Take of yellow wax one dram, glass of antimony one ounce. To the wax melted in an iron saddle, cast the glass reduced to a fine powder, calcine during half an hour on a gentle fire, continually stirring it with a spatula, then pour out the matter on paper, and when it is cold powder it.

This preparation has been in great esteem at Edinburgh, for the cure of dysenteries; and several extraordinary instances of its efficacy have been related in the Medical Essays. It operates most generally as a cathartic, and sometimes as an emetic, but it is in some instances said to have effected a cure without any sensible evacuation. The dose is from two or three grains to twenty.

E. D. *Crocus Antimonii, vulgo Crocus Metallorum.*
Saffron of Metals.

Take antimony and nitre of each equal weights. Reduce them separately into powder; then mix and inject them into a crucible heated to a white heat; when the detonation is over, separate the reddish metallic matter from the whitish crust, rub it into a powder, which wash in several portions of warm water until it becomes insipid.

The operation of this is emetic: but the infusion of it in white-wine or canary is generally used, and is the officinal *Vinum Benedictum*; one ounce of the crocus being allotted to two pounds of wine. Its dose is from two drachms to one ounce for grown persons: but for children it is too strong: and indeed all these antimonial emetics begin to be in neglect, upon account of their roughness.

L. D. *Crocus Antimonii, vulgo Crocus Metallorum.*

Take of antimony and nitre an equal weight; being separately powdered, let them be thoroughly mixed, and put by degrees into a red hot crucible that they may melt; having poured them out of the crucible, let the scoria be taken away. The mass will then appear of various colours; and the longer it has continued melted in the fire, the more it will approach the yellow.

L. D. *Crocus Antimonii lotus.*

Washed Crocus of Antimony.

Boil crocus of antimony, reduced to the finest powder, in water; the first being poured off, wash it in successive quantities of hot water, till it is entirely sweet.

This

This process is chiefly designed for making emetic tartar.

L. D. *Calx Antimonii.*

Diaphoretic Antimony.

Let powdered antimony be thoroughly mixed with three times its weight of nitre, and gradually put into a crucible just beginning to glow; then the mixture being taken from the fire, let it be purified by washing with water, as well from the salts as from the grosser parts less perfectly calcined.

The following calx is given, as a copy taken from that in the Chapel of the Rolls, for the preparation of Dr. James's powder.

Take antimony, calcine it with a continual long protracted heat, in a flat unglazed vessel, adding to it from time to time, a sufficient quantity of any animal oil, and salt well dephlegmated; then boil it in melted nitre for a considerable time, and separate the powder from the nitre by dissolving it in water.

E. D. *Calx Antimonii Nitrata.*

Take glass of antimony and nitre, of each equal parts. Mix and put them into a crucible, to be calcined so as that the matter may continue red hot for an hour; after which, having poured it out of the crucible, it must be powdered, and frequently washed in warm water so as to deprive it of all taste.

Antimonium Diaphoreticum lotum.

Washed diaphoretic Antimony.

To the diaphoretic antimony prepared as above, and powdered, pour water till it rises some inches above the antimony; digest them together for a night, and then

pouring off the water; add a fresh quantity: repeat this five or six times. The several washings being mixed together, filtered, and evaporated over a gentle heat till a cuticle appears, yield, on standing in the cold, the

Nitrum Stibiatum.

Antimoniated Nitre.

The calx of antimony, when freed by washing from the saline matter, is extremely mild, if not altogether inactive. Hoffman, Lemery, and others assure us, that they have never experienced from it any such effects as its usual title (that under which it stands in the list of the above processes) imports; Boerhaave declares, that it is a mere metallic earth, intirely destitute of all medicinal virtue; and the committee of the London college admit that it has no sensible operation. The common dose is from five grains to a scruple, or half a drachm; though Wilson relates, that he has known it given by half ounces, and repeated two or three times a day, for several days together.

Some report, that this calx, by being kept for a length of time, contracts an emetic quality: from whence it has been concluded, that the powers of the reguline part are not entirely destroyed; that the preparation has the virtues of other antimonials which are given as alteratives, that is in such small doses as not to stimulate the *primæ viæ*; and that therefore, diaphoretic antimony, as it is certainly among the mildest preparations of that mineral, may be useful for children, and such delicate constitutions where the stomach and intestines, are easily affected.

Tinctura Antimonii.

Tincture of Antimony.

Take of *Antimonium*, one pound; salt-petre, three pounds; let them be finely powdered and well mixed; then, by a spoonful at a time, put them into a red-hot crucible: let it stand half an hour in a strong melting heat, then pour the matter into a warm iron mortar; beat it to powder, and before it attracts the air, return it into a matras, and add to it of tartarized spirit of wine three pounds. Let it digest three days and nights; and there will be a fine tincture, pleasant to the taste, very fragrant, and far excelling all other antimonial tinctures.

The dose is from ten to sixty drops. It is very diuretic, as well as sudorific, and good in all kinds of cachexies, and chronical distempers. The ceruse of antimony is made with the regulus and nitre, in the same proportions and manner as the *Antimonium Diaphoreticum*: it is given in the same quantities, and is of the same virtues; but not so often prescribed. Or thus:

L. D. *Tinctura Antimonii.*

Tincture of Antimony.

Take of any fixed alkaline salt, one pound; of antimony, half a pound; of rectified spirit of wine, one quart; mix the antimony powdered with the salt, and keep them melting for an hour in a strong fire; then pour the whole out, and, being powdered, put them into the spirit of wine; digest for three or four days, and afterwards strain them off.

Cerussa Antimonii.

Ceruse of Antimony.

Take of regulus of antimony one part, nitre two parts, mix

them well, then gradually inject the powder into a crucible, heated to a light white heat, and proceed as is directed for the *Calx Antimonii*.

It is diaphoretic, and by some reckoned to equal bezoar mineral in its virtues. Its dose is from ten grains to one drachm.

Antimonium Catharticum.

Purging Antimony.

Take of the glass of antimony four ounces, finely powdered; put to it gradually of oil of vitriol twelve ounces; let it digest forty-eight hours: distil it in a sand-heat; let it cool; then wash the powder *s. a.* till all the acrimony is gone. Dry it, and grind with it an equal weight of *Sal Mirabile*, and of *Sal Enixum*, a double quantity. Put this mixture in a crucible, which place in a wind-furnace; after it has stood a quarter of an hour in gentle fusion, take it from the fire: when cold, wash the powder, dry it, and keep it for use.

It is the most certain cathartic that is made with antimony; and good in all scorbutic and chronic distempers. Its dose is from half a scruple to two scruples. Mr. Wilson tells us, that he knew three confirmed poxes cured with this medicine, in a small space of time.

Panacea Antimonii.

Take of antimony, six ounces; nitre, two ounces; of common salt, one ounce and a half; and of charcoal, one ounce. Let them all be made into a fine powder, and well mixed, and be put into a red-hot crucible, by half a spoonful at a time: continue the fire a quarter of an hour after. Then either

pour

pour the matter into a cone, or let it cool in the crucible; and there will be three substances, viz in the bottom a little regulus; above that a compact matter, something like the liver of antimony; and upon the surface, a more spongy mass. Separate them one from another; and put by the regulus: powder the spongy mass; and wash it till it hath no taste of the salts; dry it gently, and keep it for use.

The uppermost substance is counted the best; tho' some direct the middle and uppermost parts to be mixed together; and is of a fine golden colour, when washed: the middle substance is not of so pleasant a colour, and works more churlishly. The regulus is equal to the regulus of antimony. The operation is emetic and cathartic; and it is given in the pox, gout, dropsy, scurvy, and all obstinate chronic cases. The dose is from two to five or six grains. This is the basis of Lockyer's pills; which have so long been a celebrated purge. If ten grains of the finer sort of this *panacea* be mixed with white sugar candy one ounce, in a fine powder, and made up into a mass with the mucilage of gum tragacanth, it may be divided into a hundred small pills; of which, one, two, or three may be taken at a time, and they will gently work by vomit and stool.

Butyrum et Cinnabaris Antimonii.

Butter and Cinnabar of Antimony.

Take of antimony and mercury sublimate, an one pound; powder and mix them well; put them into a coated retort, which must not be charged above a third part; set it upon an iron bar, in a little

flat dish with some sand in it, in an open furnace: make a small fire at first; but increase gradually to the second degree, and the butter will rise in the neck of the retort: which melt into the receiver with live coals. Keep the fire still in that degree, till the neck of the retort is tinged red: then change the receiver, and increase the fire to the third degree; in which keep it for two hours; after that give two hours fire of the fourth, and it will raise the cinnabar into the neck of the retort. When all is cold, take it off, break the retort, and take out the cinnabar.

In this process there is both the butter and cinnabar made at once. The former is only used externally, being very caustic. It is a mighty secret among some to stop a mortification, by drawing a line with it round the part affected, which defines the bounds of the spreading evil. The cinnabar of antimony is composed of the sulphur of the antimony, and the mercury of the sublimate, which are perfectly the same with the common brimstone and quicksilver, of which the *cinnabaris factitia* is made. The antimonial cinnabar therefore, whose ingredients are laboriously extracted from other substances, is not different from the common cinnabar, made with the same materials procured at a much cheaper rate. The former indeed is generally of a darker colour than the other, and has somewhat of a needled appearance like that of antimony itself; from whence it has been supposed to participate of the metallic part of that mineral. But it appears from experiment, that both the colour and needle form are entirely accidental,

dental, and owing to the mixt containing a larger proportion of sulphur, and being sublimed in a more languid manner.

E. D. Causticum Antimoniale, vulgo Butyrum Antimonii.

Butter of Antimony.

Take of crude antimony one part, corrosive mercury sublimate two parts, powder them first separately, then mix them well together, carefully avoiding the vapours. Put this matter into a glass retort, with a short wide neck, so as to fill one half of it; then fix the receiver to the retort, and distil in a sand-heat until a thick liquor ascends and adheres to the neck of the retort, which is to be melted down by a live coal cautiously applied: afterwards distil this oily matter in a glass retort, into a pellucid liquor.

L. D. Causticum Antimoniale.

Antimonial Caustic.

Take of antimony one pound; corrosive sublimate two pounds; powder them separately, and let them be thoroughly mixed, and distilled with a sand-heat in a retort whose neck must be large; that which rises into the neck, on exposing it to the air, will become fluid.

L. D. Cinnabar Antimonii.

Cinnabar of Antimony.

Sublime what remains in the retort after making the antimonial caustic, in a coated matrafs, placed in the open fire.

Mercurius Vitæ. Commonly called

Powder of Algarot.

Take of rectified butter of antimony, as much as you please; pour to it a sufficient quantity of

pure water, and an exceeding white powder will be precipitated: edulcorate this by repeated affusions of warm water, and dry it by a slow fire.

This powder has not, as its name should seem to imply, any thing of mercury in it, but is solely composed of the reguline part of the antimony, corroded by the acid spirit of sea salt, which acid is so closely united, as not to be separable by any ablution with water. Le Mort directs some alkaline salt to be dissolved in the water, in order to separate the acid; several other methods also have been contrived for abating the force of this violent emetic; but they either leave it inert or still violent. See Emetic Tartar.

Bezoarticum Minerale.

Bezoar Mineral.

Take of the butter of antimony three ounces, drop upon it slowly as much spirit of nitre as is necessary to prevent any further effervescence; draw that off again in a sand-heat; which pour back again, with the addition of another ounce of the same; which draw again; and repeat that operation three or four times: let the remaining matter be powdered, and calcined for half an hour in a crucible, and heated to almost a white heat; then edulcorate by washing, and burn it three or four times with spirit of wine.

This seems to have been originally the contrivance of Crollius; though Quercetan, Sennertus, Hartman, and many other practical writers, give several processes for its preparation; as does also Schroder give one not much differing from this. Bezoar mineral was formerly held in great esteem

as a diaphoretic: but its reputation is at present almost lost. It is not different in medicinal virtue, or in any sensible quality, from the calces of antimony made directly by deflagration with nitre, some of which have generally supplied its place in the shops. It appears at first pretty extraordinary, that the violent caustic, butter of antimony, should be rendered indolent by the corrosive spirit of nitre: how this happens will be easily understood, upon considering that the nitrous acid expels the marine to which the caustic quality of the butter is owing. The dose is from ten grains to a dram.

The nitrous acid alone is capable of depriving the regulus of antimony of all its phlogiston, and of reducing it to a white calx, entirely similar to the bezoar mineral. Instead then of employing butter of antimony, the nitrous acid may be directly poured upon the powdered regulus. This acid readily corrodes the semi-metal, without dissolving it; because it deprives it of its phlogiston while it attacks it, and quickly reduces it to a white calx. When this acid is carried off, and more acid poured on, and this operation repeated several times, till the matter is at last calcined, a white calx of antimony is obtained entirely similar to bezoar mineral.

Magistery of Bismuth.

Put spirit of nitre one pound, made with oil of vitriol, into a great uncut body, and add to it as much powder of tin-glass, or bismuth, by an ounce at a time, as

the spirit is capable of dissolving; which will be about seven or eight ounces. Then take two gallons of water and dissolve it in four ounces of common salt; filter the whole, and put it into a clean earthen pan. Pour upon it the dissolution of bismuth, and immediately it will turn milky, and let fall a precipitate. Permit it to stand till settled, and by gentle inclination pour off the water from the magistery. Put on more fresh water, stir it well, and when well settled pour it off; and so continue the ablutions, till the magistery becomes insipid; which dry gently, and keep for use.

This has the same virtue as the flowers, and is used only as a cosmetic. The vessel in which the dissolution is made, ought to be placed in a chimney, to avoid the fumes, which are very noxious and suffocating.

Flores Bismuthi. Flowers of Bismuth.

Beat bismuth into a very fine powder, and to four ounces of it put half a pound of nitre, also in fine powder: put the mixture, by half a spoonful at a time, into an earthen body perforated in the side, and furnished with aludels: when the body is red hot, and the operation is over, take away the aludels, and sweep off the flowers with a feather.

These are very white, and used as an excellent fucus, mixed with pomatum, or rose water: but they must not be too busy with it, who try it upon their complexion; for it may do mischief many ways.

BOOK IV.

Of Official Compositions.

HAVING already taken such notice of the medicinal simples as concern them, either as they are divisible into classes, corresponding in some common properties, and requiring particular management in preparation; or as they afford medicines of considerable efficacy from the chemical Pharmacy; we now come to inquire into the most advantageous way for managing them in composition, and how to procure more important effects from their united virtues, than could be well had from them when separate. For medicinal composition is, or at least ought to be, a contrivance to obtain ends from those materials in conjunction, which cannot be answered to equal advantage from any of them single: but for the very same reason we ought not to have recourse to such trouble, where, with equal certainty, an intention can be answered by a more simple procedure.

As to the advantages of composition in general, some carry their good opinion of it so far, as to contend for an additional efficacy thereby to the virtues of particular simples, which, without such an union of them with others of similar properties, would not be so strongly exerted. Thus Diemerbroeck, in his notes upon the *Theriacal Andromachi*, frequently suggests, that the composition is not only a more efficacious medicine from the

concurrent powers of so many ingredients, alike in virtue, but that the several simples contained therein, do, as it were, overact their parts, by a mutual emulation, which separately, they would not be so provoked to do. Charas, on the same subject, insinuates something also of the like nature. But how much soever such conceits may lie beyond the common way of judging concerning these things, yet thus far may easily be conceived, how by a regular and well-contrived composition, some intentions of moment may be answered much more effectually, and in some cases with more safety, than from any simple medicine.

To obtain then the most important ends, and the greatest advantages possible from composition, the following rules will appear absolutely necessary to be particularly regarded.

1. That one main intention be pursued throughout the whole. To compound a medicine with ingredients of different virtues, in order to make it more extensively useful, very much hazards its being good for nothing; both on account of that contrariety, or disagreement in the things themselves, which may very probably hurt or destroy one another whilst in conjunction; and the different manner in which they may affect a constitution by their operation. So that where cases are so complicated,

that

that more than one thing of moment is to be done, the means are much better sought for in different medicines, than in any compound. And it hath been plainly owing to a neglect of this rule, that some of the old Dispensatories abound with compositions which contain ingredients, not only very remote in intention, but sometimes even opposite, and repugnant in qualities to each other. And it is greatly to be feared, most of the more complex compositions are chargeable with this fault; that is, of aiming at too much in one thing. But this error is no where so remarkably fallen into, as in some of the old emplasters, where we shall frequently meet with ingredients hot and cold, repellers and drawers, discussers and suppuratives together; as if the contrivers, in diffidence of what way an obstructed matter might take to throw itself off, were resolved to provide for it all ways; and so in reality made an application of what could do just nothing at all. The same bad way of judging likewise used to furnish us with plenty of cathartics, and univerſal purgers, where the composition was designed to contain something against all humours; but these are now justly come into neglect. All the true advantage then of composition, is to choose such a set of simples, whose medicinal virtues do all so contribute to the same end, that in conjunction, they may be more likely to answer that end, than any of them singly could be expected to do. Thus out of those fetid gums, for instance, which are generally prescribed in hysteric affections, *Ammoniacum*, *Galbanum*, *Opopanax*, or any three or four of them may be put together to

advantage; because every one of them singly might fail to reach the case in some particular constitutions, whereas thus in conjunction there is a much greater chance to succeed: and though the benefit may perhaps be assignable to some one, yet they all by a similitude of qualities have their chance to be that one, and therefore the end is more likely to be answered. Thus likewise in stomachics, some variety of bitters and spices together, are, for the same reasons, more likely to do service, than any single ingredient, not only from the greater chance of some one amongst so many agreeing with a particular constitution, but from a concurrence of properties, all conspiring to the same end. The same may be observed of pectorals, emollients, or compositions of any other view: but this by no means justifies mixing these different things one with another, though in cases complicated enough to require more than one intention to be answered at a time. An hysteric patient may want stomachics, as also one labouring with an asthma, but bitters are not therefore to be joined with fetid gums in any one form; or with emollients, or pectorals. But both on account of neatness, and efficacy in every mixture, an uniformity of intention is best preserved and complicated cases are most conveniently provided for by different forms, exhibited at times least interfering with one another.

2. Another thing worth our consideration in composition is, that when a set of simples are chosen, agreeing in intention, too many of them be not crowded in together: a few of like efficacy may concur and assist each other in operation,

and answer with more certainty by some little varieties in the same qualities, extending the virtues of the whole farther than could be expected from either singly, as was before observed; but when a great many are crouded in, it is a great chance but some will rather prove clogs to the efficacies of others, than assistants to them; and a much greater hazard is risked of having in them something disagreeable to particular constitutions. Thus, for instance, in selecting a set of aromatics for a cordial, in a distilled water, or any other proper form, not only the utmost care is to be taken, that they be all of this class, but likewise, that they are the most fragrant, and the most suitable in all their qualities to this intention; as rosemary, marjoram, lavender, and a few more of like flavour and volatility: but if every thing that claims a place in this rank from some one quality, was to be admitted, the composition, instead of obtaining an uniform, and an agreeable scent and taste, would be confounded into a distasteful and nauseous medicine; for after all, those which excel in any one particular property, most suitable to the main intention of the medicine, are chosen out; all additions afterwards cannot but make it worse, either by subtracting from the efficacies of the better sort, which then cannot be admitted in such large proportions, or disturbing their virtues and scents with those not so agreeable. Herein also, many of the older compositions are very culpable, and those chiefly which have been imported to us from foreign writers: for many of them, which well enough agree in uniformity of intention, do notwithstanding take in such a

multitude of ingredients, that they are more troublesome, more unpleasant, and less efficacious, than if fewer of the same tribe only had been made use of.

But this fault of crouding too many ingredients into one composition, does not always arise from an injudicious fondness to enhance its virtues, by such variety, but sometimes also from a notion of restraining and qualifying the too powerful efficacies of some things, with others, which are commonly termed their correctors; and this custom hath most obtained in cathartics. What we are strictly and properly to understand by a corrector, as it relates to this class of medicines, may be pretty easily conceived, because no more is meant by it, than restraining some things of too violent operation in themselves, and causing them to work more mildly. Under some preparations of the chemical Pharmacy before taken notice of, under mercurials and saline cathartics, it was shewn, how this was done by lessening their stimuli, only by comminution, as in repeated sublimations; by triture, and firing spirit upon them; or, if they were of the resinous kind, by dividing them with lixivious salts: but there is yet a farther way, which more strictly answers the natural import of this word; and that is by a mixture of somewhat that makes their irritations either less in themselves, or less sensible to the membranes; and this is commonly by a mixture of the warmer spices, especially the seeds, or the essential oils drawn from them. How these materials answer this end, and obtain the name of correctors, may easily enough be conceived by the direct opposition of their

their manifest properties to those of a sharp cathartic; which by their soft, oily texture, are fitted to cover and lessen the force of a stimulus. And upon the same foundation it is, that gruel and broths are directed in the operation of cathartics. But this necessary precaution by no means justifies loading a composition with too many things, under such a notion, especially where the effective ingredients are even in themselves mild enough and require such large quantities for a dose, as to render them troublesome to take. And this seems to be the reason, why many of the larger compound purging electuaries are rejected in the modern Dispensatories; and why those which are still retained are not often met with in prescription; six drams, or an ounce of some of them, being requisite for a dose.

The foundation of mixing opiates with most alexipharmic compositions, the larger ones especially, might take up a good deal of thought to inquire into; but lest it should be judged not strictly a part of our present business, I shall only farther observe, that,

3. Another very material regard in composition is, that there be a natural fitness of every ingredient to that particular form it is to enter. A similitude in their medicinal virtues only, is not sufficient to justify the collection of simples into a compound, unless there be likewise a suitableness in their natural textures for like management, and to be preserved together in the same forms. Thus in a cordial water, every aromatic hath not a right to be there as an ingredient, by virtue of that particular quality, without a suitableness in it, also from its natural tex-

ture, which disposes it to give out its virtues that way to advantage; though there may be as few exceptions perhaps to this form, taken out of this class, as any; because that very propriety which entitles them to the appellation of aromatics, furnishes them with something capable of being brought over in distillation; but when a spicy cordial flavour arises from substances which are tenacious, fat and oily, they are not fit for this form, because they will send over what will make a water foul, turbid, and milky: so that gums and oily seeds are but sparingly, if at all, to be received herein. And thus particular instances may be produced of the particular forms, into which all the simples of any one class are by no means reducible, on account of some natural unsuitnesses in their texture for such forms. So that an uniformity and similitude of texture, as well as of intension, is necessary to be observed in every composition. But the fitness or unsuitness in this respect, will so easily appear from the things themselves, as they occur in dispensation, that it is needless to enumerate more particular cases here.

4. All compositions ought to be rendered as agreeable as possible to the sight, smell, and taste; and to be of efficacy enough to render a sufficient quantity for a dose, easily to be taken. Thus, in the liquid form especially, every thing ought to be avoided that gives an unlighty colour, as green or black, as all alkalious substances mixed with red will occasion. All fetid substances are likewise inconvenient herein, because their scents are more diffused, and more perceived in taking, than in the dryer forms.

And

And all things very brackish and saline, for the same reasons, are to be confined only to the drier forms, as the *Sal Succini*, *Ess Veneris*, and the like, because they are very nauseous in liquid mixtures. But instances of all cases necessary to direct us herein, will sufficiently occur in passing thro' the several forms themselves.

Thus much it hath been thought needful to observe concerning composition in general; what farther of consequence requires our attention, arises upon its division into officinal and extemporaneous composition.

The first of these we have recourse to, either upon account of necessity, or convenience. Abundance of our materials are supplied only at certain seasons of the year; all medicines therefore from that stock are so directed, that they may be made at those seasons, and preserved in readiness in the shops for present occasions. Thus many of the waters, most of the syrups, all the conserves, as likewise almost all the ointments and oils, are to be made only at the seasons when their respective ingredients are to be had in greatest perfection. So that one great end in officinal prescription, that is, the compiling a set of rules, as a standard for the shops to go by, is to take in all those medical simples, which afford their virtues but at certain seasons, or then to the greatest advantage into some form or other, most suitable to their make or natural production. All that branch of Pharmacy, which is now got into the hands of the confectioners, hath been the result of this necessity. What the apothecaries yet retain from this foundation, as syrups and conserves, are so neces-

sarily clogged with sugar in their keeping, that many of them grow into disesteem, as medicines of themselves not to be trusted to; nevertheless they have their use, in giving to other forms the necessary consistence, or as vehicles to more efficacious medicaments.

The other occasions of officinal composition arising from convenience, furnish us with all those medicines which require much trouble and time to make; and the main end of such contrivances, is to have in readiness more efficacious remedies, than can be procured in that haste in which many exigencies require them.

One of the most obvious regards then in such compositions is; that nothing enter into them which is of itself soon liable to spoil, or to hurt other things with which it is put in company. Thus every thing apt to ferment, grow rancid, or mouldy, or any way indeed to deviate from its natural and acquired properties, ought not to come into this rank of medicines. There are many things also which require an higher consistence for their preservation, than is necessary to the same forms in extemporaneous practice. A neglect in both these respects is the cause, that sometimes we meet with very bad medicines in the shops, which at first may have been made of very good materials. And these defects occur in nothing oftener than in the species Haly, *Diatragacanthi frigid* and the lenitive electuary, with some others of like make: the first spoil from the oiliness of their ingredients, which will not suffer them to keep without growing rancid; and a want of a due consistence, which is a fault in the maker only, and not the prescriber, though

though it ought to be looked after by the latter, is the reason why the others fall into fermentation, and are utterly spoiled thereby. The *Pilulæ Fætida* is likewise an instance of a composition where things are put together which cannot keep long without growing mouldy. But how to avoid these faults, will more readily occur in examining some particular compositions.

But not only care is to be taken, that in official compositions such things be put together, as will keep in company, without losing or changing their properties, but also, that they have a fitness in themselves to preserve an uniform consistence: though an error in this respect can hardly be fallen into, unless in the larger electuaries, or confections, whereinto if some of the heavier species are ordered, and particularly the testaceous powders, with any liquor or moisture not thick enough to suspend them, they will fall to the bottom, and make the whole of a very unequal consistence. The *Confectio de Hyacintho*, *Alkermes*, *Electuarium de Sassafras*, with some others, have been chargeable with this fault; but the college have now avoided these inconveniencies, either by altering those compositions, or expunging them.

In the last edition of the London Dispensatory, there are a few medicines, under the title of Infusions, which cannot be supposed

to arise from that of the aforementioned considerations, either of necessity or convenience, in having them ready, because they may be made at all times, and will not keep; so that they must be made only when called for in extemporaneous practice. And therefore their prescription in an official Dispensatory seems only to save the trouble of directing these ingredients separately on all occasions, as they are called for; and to give to every prescriber a form, for what before was directed with much uncertainty. And as far as is consistent with the diversities of cases, and circumstances, such standards might be of use in other forms, which have not hitherto been made official. Quincy's Lectures, page 97—107

In this part are intended to be given all the compositions of the colleges of London and Edinburgh, according to their last amendment of their Dispensatories. Next will be collected many from Dr Bates's Pharmacopœia, and others. Some recipes also will be retained, that have fallen into disregard; either through the difficulty of making, or their liability to sophistication, but are of uncommon efficacy; and likewise some inserted, which may be presumed worth bringing into the rank of official medicines, both upon account of their easy composition, convenient keeping, and their efficacy in many intentions of cure.

S E C T. I.

Of Waters, Spirits, and Essential Oils.

WATER, distilled over from certain plants, &c. by a boiling heat, becomes more or less impregnated with their flavour and virtue. The distillation is performed in the same kind of instruments as that of essential oils, and the distilled liquor owes the qualities it acquires, to a portion of the oil of the subject elevated and mingled with it.

The virtues capable of arising in this process, are those only which consist in warmth, pungency, and smell or flavour; and hence such substances as are eminently endued with these, are the proper subjects for distilled waters to be drawn from; such are spices, warm feeds and berries, fragrant herbs, flowers, and fruits, and some of the acrid plants. Cathartic, emetic, astringent, bitter, sweet, cooling, emollient, nutritious qualities, are in vain expected to come over the helm.

Some vegetable matters, even of the more odoriferous kind, undergo such an alteration from the aqueous medium, and the degree of heat necessary in this operation, that though the subject loses all its fragrance, yet the distilled liquor has little or nothing of it, but proves both in smell and taste disagreeable.

In order to collect the volatile virtues of these kinds of vegetables, the chemists have contrived

another process, which Boerhaave seems particularly fond of. The subject is included in proper vessels, without any additional matter, and exposed to a heat no greater than that of the summer's sun: the vapour, which arises in this degree of warmth, and condenses in the receiver, is supposed to contain the more fragrant, subtile, and aromatic parts of the plant; and to be in reality, the effluvia that would exhale from it in the open air, caught and collected by the means of art.

This process however, is, upon trial, found defective; the liquors obtained by it proving greatly different in smell from the natural effluvia of the subject. And indeed the principle it is founded upon, appears to be erroneous: it is not the sun's heat alone that raises and impregnates the air with the odorous effluvia of vegetables; this fluid itself, as a menstruum, dissolves and imbibes them. It is when the air is humid, not when it is warmest, that odoriferous herbs and flowers diffuse their fragrance; exsiccated in a warm dry air, they in good measure retain the flavour which an humid one, though cool, would totally rob them of.

The natural effluvia of vegetables therefore, which may be looked upon as an infusion of them made in air, may have very different effects

effects from those parts of them which are capable of being elevated in distillation. Thus, though the effluvia of poppies should procure sleep or bring on lethargic disorders, and those of the walnut tree bind the belly, (as they are reported to do) it is not to be expected that their distilled waters should do the like. Lemery relates, from his own knowledge, that several persons were purged, by staying long in a room where damask roses were drying; an effect daily experienced from aqueous infusions of these flowers, but never from their distilled water.

Many have been of opinion, that distilled waters may be more and more impregnated with the virtues of the subject, and their strength increased, to any assigned degree, by cohobation, that is, by redistilling them a number of times from fresh parcels of the plant. Experience, however, shews the contrary; a water skilfully drawn in the first distillation, proves on every repeated one, not stronger, but more disagreeable. Aqueous liquors are not capable of imbibing above a certain quantity of the volatile oil of vegetables, and this they may be made to take up by one, as well as by any number of distillations: the oftener the process is repeated, the ungrateful impression which they generally receive from the fire even at the first time, becomes greater and greater. Those plants which do not yield at first waters sufficiently strong, are not proper subjects for this process, since their virtues may be obtained much more advantageously by others.

The wormwoods, the carduus, and the fumitory, are in no respect fitted for this management: as to

the first, if they have any scent that will come over, is so much the worse; because they are to most very offensive, especially that of the common wormwood; and all of them have their medicinal virtues only in a bitter, earthy salt, that will not rise in the still, and is to be come at only by decoction. Celendine, parsley, and saxifrage, have nothing in them volatile to send over in distillation; but abound with a nitrous salt, that proves diuretic, when ordered in proper forms: and the plantane and oaks buds yield only a viscid mucilaginous juice, which will afford nothing over the helm but an insipid phlegm, that will soon murther and grow ropy. The same is chargeable upon the frogs spawn, succory, and eye-bright, which likewise give over nothing discernible in a water: and what comes from fennel, soon grows rank, and is so ill scented as not to be endured; besides its aptness to grow ropy. From flowers, as those of oranges, camomile, rosemary, damask roses, and elder, the most fragrant waters are procurable; but from the rest very little of value. The citron peel also, among the fruits, makes a most delightful water; but neither raspberries nor walnuts send over any thing that will smell, taste, or keep.

It may indeed, in some cases, with good reason, be required to have simple waters under the denomination of coolers, or such as have no other property than being soft vehicles to other things; and these are best procured from inodorous or soft substances, as plantane, frogs spawn, and the like. And certainly a distilled water is more strictly and simply elementary, and more a diluter than any other;

other ; but it is almost impossible to keep these the year round, which can be had only from vegetables at certain seasons ; and therefore such as are desired for mere diluters, or coolers, may possibly be had fresher drawn, at any season, from substances of like smoothness and texture. The simple waters indeed from the lighter scented plants, as baum, and the like, are very subject to the same decay ; but that may in some measure be remedied by sprinkling the green herb, before it is put into the still, with a little spirit ; which will be so far from a prejudice to the flavour of the water, that it will rather help and improve it.

Those odorous simples, which are, singly, or in conjunction only with some spicy ingredient, most suitable in intention, drawn over with a fictitious spirit, or, as it now is commonly ordered, with French brandy, make, what are entitled in the shops, the lesser compound waters, or spirits, distinguished by the names of the things they come from ; as the *Aqua Absinthii*, and *Angelicae minus composita*, the *Spiritus Croci*, and the like ; and this management admirably fits the finer scented plants, or any of the species ; which may be so preserved as high as a cordial can be taken ; or diluted as low as any case can require in extemporaneous practice.

In this way of drawing off the more volatile and scented parts of many simples, some also afford a very good medicine in their residuum. Thus when the spirit of saffron is made, the remainder may be formed into an extract of great virtue and efficacy ; not as a cordial, because those parts most-

ly arise with the spirit ; but as a most powerful detergent in isterical cases, and all chronic affections, where the viscera are foul. It may also be ordered to make the *Syrupus Croci* with this residuum ; for those who look upon it as a cordial in this form, use it to the worst advantage possible ; the very term of a cordial syrup almost implying an absurdity ; considering to how much better purposes things of that intention come into other forms. In the same manner, after the *Aqua Gentianae composita* is come over, the residuum may as conveniently be exhaled into an extract, as if no distillation had been made ; and in this last instance it is much to be questioned whether the residuum be not the better part on this account ; for neither gentian nor centaury, though good stomachics in infusion, seem fitted to send over the helm any thing valuable in that, or in any other intention. After the distillation likewise of the damask roses (as was before observed on another occasion) may the purging syrup be made of the residuum to the best advantage. Other extracts have been procured by the same good husbandry in the old Dispensatories, with the *Residua* of the *Aqua Theriacalis*, *Aqua Bryoniae composita*, &c. but the modern practice hath so much neglected them, that they are now come entirely into disuse.

The more compound waters we may distinguish into cephalics, or cordials, alexipharmics, carminatives, hysterics and nephritics. Among the first, I reckon the *Spiritus Castorei*, *Croci*, and *Lavendulae*; *Aqua Paeoniae composita*, *Aqua Imperialis*, *Mirabilis*, *Stephani*, and the *Cinnamomi*. Under the second division,

division, the *Aqua Epidemia*, *The-riacalis*, *Frotheriacals*, and *Lædis Alexiteria*. Under the third, the *Aqua Absinthii*, and *Angelicæ magis composita*, and the *Aqua florum Chamæmeli composita*. To the fourth belongs only the *Aqua Bryoniæ composita*; and to the last, the *Aqua Raphani* and *Aqua Nephritica*; the *Aqua Limacum* remaining under a different intention from them all, being designed for a restorative, or strengthener; and the *Aqua Gentianæ*, and *Aqua Absinthii minus composita*, for stomachics.

As this class of medicines stands thus ranged under some common intention, we shall be the better able to observe the suitability of their respective ingredients to the main design of each composition.

Under the first division, in the spirit of lavender, the *Matricaria* is too fetid a plant, and much better fits the *Aqua Bryoniæ*, wherein it is an ingredient; all the other ingredients that are ordered in distillation suiting well enough to the whole, or doing no harm; for in distillation an insipid ingredient, as some of these nearly are, will not hinder the ascent of those which afford something of efficacy; whereas it is quite otherwise in tincture, because then they do mischief by helping to load the menstruum, and render it less able to take up parts which would be of consequence: and thus the red saunders and red rose leaves would hardly be worth putting into the second process of this medicine, were it not for the tincture that is expected from them; but especially the saunders, to which it owes a most beautiful colour. The spirit of castor is very remarkable for the exact agreement of its ingredients in every respect; but it is at-

tended with an inconvenience common to all spirituous tinctures loaded with such substances, of changing milky when diluted for taking. The *Aqua Pæoniæ composita* hath some ingredients in it of little or no efficacy to the main purpose, and others entirely unfit for this form: of the first are the *Radix Diſtami albi*, and *Aristolochiæ longæ*; neither of which will send any thing discernible over the helm. The *Semina Pæoniæ*, and *Viscus Quercus* likewise, however agreeable they may be to this intention in other forms, will not send out any thing of that kind by distillation. The seeds will make well enough into an emulsion, when husked, and the missetoe is best reduced into a powder; but husking the seeds to be distilled, were they proper for it, is a circumstance very trifling. The castor is here increased in its quantity to what it was before, but although it may be the most considerable ingredient in the whole for the main intention, yet the more it sends over the helm, the more will it deform the water with a milkiness and disagreeable scent; and therefore it is much better contrived into other forms, though in the quantity it now stands here, it is too little to do much harm in this respect; so that this water in the main is pleasant enough, and now obtains in common prescription beyond any other of the same rank.

The *Aqua Imperialis* is very uniform, both in the virtues of its ingredients, and their fitness for distillation: but some of the oily spices, as the nutmegs and cloves, are in such large quantities, that the common way of drawing by the hot still make it come over

very foul and milky ; however, this happens to be so seldom prescribed, that it is rarely to be met with in the shops.

The *Aqua Mirabilis* is unexceptionable, unless in regard to the large quantities of its oily spices ; and the *Succus Chelidonii*, which seems to contribute so little to it, that very few give themselves the trouble to put it in.

The *Aqua Stephani* is in a less degree culpable in this respect, so that it makes a very agreeable cordial ; but the penny-royal is no advantage to it, the fetidness of that better suiting it for an hysseric in the *Aqua Bryoniæ comp.*

The *Aqua Epidemica* takes in many things for which it is not much, if at all, the better ; as the eelandine, agrimony, carduus, centaury, betony, and gentian root ; and indeed the whole is by many not so well esteemed as the foregoing, either for its uniformity of intention, or efficacy.

The juices of walnuts, carduus, and marigolds, are reckoned to contribute but little to the *Aqua Theriacalis*. The rest of the ingredients agree in every respect ; and the distilled vinegar, as ordered to be put in, is a very great improvement of the medicine.

The *Aqua Protheriacalis* is so seldom made or prescribed, that we need not be very careful about it ; though it hath some ingredients for which it is little the better ; as the scabius, carduus, and goats rue.

The *Aqua Lactis alexiter*, is likewise chargeable with redundancy in the carduus, goats rue, and meadow-sweet ; unless it is designed as an insipid, and for the same purpose as was taken notice of concerning some simple waters

from plantane, frogs-spawn, and the like ; but then the wormwood, rue, and other ingredients would be blameable, and its title Alexiterial would be wrong.

Amongst the carminatives, the *Aqua Absinthii* and *Angelicæ magis composita* are sufficiently uniform in their intentions, but have too many of the oily seeds to let it come over fine, especially the latter ; and they are neither of them much prescribed or made. The *Aqua Florum Chamæmeli composita* would be a much more pleasant medicine, were the common wormwood and penny-royal omitted ; because they both send over an ungrateful flavour.

The *Aqua Bryoniæ composita* takes in some of the most efficacious of the fetid simples, and seems admirably well contrived for the intention of an hysseric, so far as their virtues are procurable this way : but they who would have it good, must expect it very foul and milky ; for where it is otherwise, either it has been defrauded of its due quantity of the best ingredients, or their better parts have been precipitated with alum, or taken out with the filtre.

The *Aqua Raphani composita* aims at the intention of a diuretic ; but will, if good, be attended with the like foulness as the former. The same also happens to the *Aqua Nephritica*, from the quantity of nutmegs in it.

The *Aqua Limacum tenuis* consists so much of mucilaginous ingredients, that what comes over soon grows ropy and sour, especially in warm weather ; and the quantity of Canary directed in the *Aqua Limacum fortis*, will not without good care preserve it from the same inconvenience : so that all of this intention

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intention are much better directed in extemporaneous prescription, not only on account of having them fresh, but also better suited to the circumstances of particular cases, which frequently vary in the patients requiring them.

If we consider the wormwood and gentian waters as stomachics, little can be expected from them; because the materials they are drawn from are not suited to send any thing over by distillation, that comes within this intention: so that if there be any thing good in them, we are more beholden to the spirit than the ingredients for it. After the gentian water is drawn, the extract is easily made from its residuum, as hath been already observed.

Amongst the *Aquæ Medicamentosæ*, the Sapphirina is most in use as a collyrium, and remarkable

chiefly for its beautiful colour. The *Aqua Aluminosa* is used chiefly as a lotion in cutaneous foulnesses; but it is seldom prescribed.

N. B. The sense of the word *simple*, when applied to distilled waters, in the London Dispensatory, means such as are distilled with water only, in opposition to those waters that are distilled with spirit, and are called spirituous distilled waters. In the Edinburgh Dispensatory, it signifies such as have one simple, or ingredient, for their subject, in contradistinction to those that are drawn from two or more. This is evident in the instance of the *Aqua Alexiteria*, which, though consisting of several ingredients, is called, in the London Dispensatory, a simple water; and though drawn without spirit, obtains in the Edinburgh Dispensatory the name of a compound water.

Rules to be observed in making Simple Waters.

I. The several plants, or parts of plants, ought to be fresh gathered.

II. Having bruised the plants, pour on them thrice their quantity of spring-water. Such as are either dry or succulent in an extraordinary degree, require a greater or lesser proportion. The distillation may be performed in an alembic with a refrigeratory (the junctures being luted), and continued as long as the water, which comes over, has any smell or taste of the plant, care being always taken to avoid an empyreuma.

III. If any drops of oil swim on the surface of the waters, they ought to be carefully taken off.

IV. That simple waters may keep longer, about one twentieth

part of proof spirit may be added to them after they are distilled.

V. The herbs, if they are of prime goodness, are to be taken in the weights directed for each. Where green are prescribed, such are to be used. But in some of the waters, dry herbs are allowed, because they are to be had at all times of the year; the green plants, or such as are but newly dried, afford rather the more elegant waters. The weights here directed should be varied by the judgment of the operator, not only when green are used instead of dry, but whenever the plants by a less favourable season are weaker in flavour.

L. D. *Aqua Alexiteria simplex.*

Simple Alexiterial Water.

Take of spearmint leaves, fresh, a pound and a half; sea wormwood tops, fresh, angelica leaves, fresh, each one pound; water, as much as is sufficient to prevent an empyreuma. Draw off by distillation three gallons.

Or, according to the late Edinburgh Dispensatory,

Take of elder flowers, moderately dried, two pounds; angelica leaves, fresh, one pound; water, *q. s.*

These waters, particularly the first, are sufficiently elegant with regard to taste and smell; though few expect from them such virtues as their title seems to imply. They are used occasionally for vehicles of alexipharmic medicines, or in juleps to be drank after them, as coinciding with the intention; but in general are not supposed to be themselves of any considerable efficacy.

L. D. *Aqua Seminum Anethi.*

Dill Seed Water.

Take of dill seeds, a pound and a half; water, as much as is sufficient to prevent an empyreuma. Draw off by distillation one gallon.

This water, which turns out pretty strong of the dill seeds, is sometimes employed as the basis of carminative juleps. It is similar in flavour to a water drawn from caraway seeds, but less agreeable.

E. D. *Aqua Seminum Anethi Simplex.*

Simple Water of Dill Seed.

To a pound of dill seed, add as much water as is necessary to draw off a gallon, and enough to remain that an empyreuma may be pre-

vented. After the needful maceration draw off a gallon.

In the same manner is prepared a gallon of simple water from cinnamon, half a pound; leaves of peppermint, a pound and a half; penny-royal, a pound and a half; Pasqua flower, with the leaves and flowers, two pounds; Jamaica pepper, half a pound, and damask roses, six pounds.

L. D. *Aqua Corticum Aurantiorum simplex.*

Simple Orange Peel Water.

Take of yellow peel of Seville oranges, dried, four ounces; water, as much as is sufficient to prevent burning. Distil off one gallon.

This water proves very weak of the orange peel. It is designed for a diluter, in fevers, and other disorders where the stomach and palate are subject to receive quick disgust; in which cases (as the committee observe) cordial waters, especially if their use is to be long continued, ought to be but lightly impregnated with any flavour, however agreeable.

L. D. *Aqua Castorei.* Castor Water.

Take of Russia castor, one ounce; water, as much as will prevent burning. Draw off two pints.

Castor yields almost all its flavour in distillation to water; but treated in the same manner with spirit of wine, gives over nothing. The spirit of castor formerly kept in the shops, had none of the smell or virtues of the drug; whilst the water here directed proves, when fresh drawn, very strong of it.

It is remarkable, that the virtues of this animal substance reside in a volatile oil, analagous to the essential oils of vegetables: some

some are reported to have obtained, in distilling large quantities of the drug, a small portion of oil which smelt extremely strong of the castor, and diffused its ungrateful scent to a great distance.

This water is made use of in hysteric cases, and some nervous complaints; though it has not been found to answer what many people expect from it: it loses greatly of its flavour in keeping.

Aqua Cerasorum Nigrorum.

Black Cherry Water.

Let any quantity of black cherries be bruised, so as that the stones may be broken; and then distilled, according to art, with only a small proportion of water.

This is a very grateful water, and has long maintained a place in the shops. It has frequently been employed by physicians as a vehicle, in preference to the other distilled waters; and among nurses, and others who have the care of young children, has been the first remedy against the convulsive disorders to which children are so often subject.

This water has nevertheless of late been brought into disrepute, and by some looked upon as poisonous. They observe, that it receives its flavour principally from the cherry stones; and that these kernels, like many others, bear a resemblance and taste of the leaves of the lauro-cerasus, which have some time past been discovered to yield, by infusion or distillation, the most sudden poison known. Some physicians of Worcester have lately found, by trial purposely made, that a distilled water very strongly impregnated with the flavour of the cherry kernels (no more than two pints being distilled

from fourteen pounds of the cherry stones) proved in like manner poisonous to brutes: the committee of the London college repeated the same experiment, and found the effects agreeable to those gentlemen's report.

It by no means follows from these trials, nor after such long experience can it be imagined, that black cherry water, when no stronger than the shops have been accustomed to prepare it, is unsafe. These kernels, as the committee observe, plainly resemble opium, and some other things, which poison only in too great quantity; the water from the very laurel leaves is harmless when duly diluted.

It is possible, however, that this water in any degree of strength may not be altogether safe in the tender age of infants, where the principles of life are but just beginning as it were to move: it is possible, that it may here have had pernicious effects, without being suspected; the symptoms it would produce, if it should prove hurtful, being such as children are often thrown into from the disease which it is imagined to relieve.

L. D. *Aqua Cinnamomi simplex.*

Simple Cinnamon Water.

Take of cinnamon, one pound; water, as much as will prevent burning. Distil off a gallon.

The virtues of all these waters depend upon their containing a portion of the oil of the subject. The oil of cinnamon is extremely penerous, and arises more difficultly than that of any of the other vegetable matters from which simple waters are ordered to be drawn. This observation directs us, in the distillation of this water, to make

use of a quick fire, and a low vessel. For the same reason, the water does not keep so well as might be wished; the ponderous oil parting from it in time, and falling to the bottom, when the liquor loses its milky hue, its fragrant smell, and aromatic taste. Some recommend a small proportion of sugar to be added, in order to keep the oil united with the water.

L. D. *Aqua Fœniculi.*
Fennel Water.

Take of sweet fennel seeds, one pound; water, as much as is sufficient to prevent an empyreuma. Distil off one gallon.

L. D. *Aqua Menthæ vulgaris simplex.*

Simple Spearmint Water.

Take of spearmint leaves, dried, a pound and a half; water, as much as is sufficient to prevent burning. Draw off by distillation one gallon.

These waters smell and taste very strong of the mint; and prove in many cases an useful stomachic. Boerhaave commends them (cohabated) as a present and incomparable remedy for strengthening a weak stomach, and curing vomiting proceeding from cold viscid phlegm; as also in henteries.

L. D. *Aqua Menthæ Piperitidis simplex.*

Simple Pepper-mint Water.

Take of pepper-mint leaves, dry, a pound and a half; water, as much as will prevent an empyreuma. Draw off by distillation one gallon.

This is a very elegant and useful water: it has a warm pungent taste, exactly resembling that

of the pepper-mint itself. A spoonful, or two, taken at a time, warm the stomach, and give great relief in cold, flatulent colics. Some have substituted a plain infusion of the leaves, which is not greatly different from the distilled water.

L. D. *Aqua Piperis Jamaicensis.*

Water of Jamaica Pepper.

Take of Jamaica pepper, half a pound; water, as much as will prevent burning. Distil off one gallon.

This is the only officinal preparation, in which Jamaica pepper is an ingredient. The distilled water is a very elegant one, and has of late come pretty much into use: the hospitals employ it as a succedaneum to the more costly spice waters.

L. D. *Aqua Pulegii simplex.*

Simple Penny-Royal Water.

Take of penny-royal leaves, dry, a pound and a half; water, as much as will prevent burning. Draw off by distillation one gallon.

This water possesses in a considerable degree, the smell, taste, and virtues of the penny-royal. It is frequently taken in hysteric cases, and not without good effects.

L. D. *Aqua Rosarum Damascenarum.*

Damask Rose Water.

Take of damask roses, fresh gathered, six pounds; water, as much, as will keep them from burning. Distil off a gallon of the water.

This water is principally valued on account of its fine flavour, which approaches to that generally admired in the rose itself.

Former

Former Simple Waters of the College.

From the Leaves and Buds of

Both the wormwoods, angelica, carduus B. succory, the greater celandine, eyebright, fennel, fumitory, hyssop, marjoram, baum, mint, parsley, plantane, pennyroyal, oak, rue, saxifrage, and meadow-sweet.

From the Flowers of

Oranges, camomile, beans, lilies of the valley, red poppies, cowslips, piony, rosemary, white, red, and damask roses, elder, and limes.

From the Fruits of

Citron (the peel), raspberries, green walnuts, and black cherries: from twelve pounds of the latter of which, bruised with the stones, draw one gallon.

From an Animal.

Frogs-Spawn.

Here a very great reduction is made of the simple waters, with which the Dispensatories formerly abounded; and certainly with good reason; because there were not only many before ordered of no efficacy, but likewise they were so numerous, that a great deal of needless trouble and expence were employed to keep them all in readiness. It may possibly be disputed, whether those now retained, are of importance or efficacy enough to deserve it; but it is to be remembered, that very little dependence is had upon any simple water; they being seldom used but as vehicles to things of greater virtue; and in many circumstances a vehicle is so much the better, for being destitute of any medicinal flavour or taste, as it the more gratefully conveys down what the

greatest stress is laid upon. But here it may not be amiss to advertise the reader, that whatsoever properties any simple has in the grosser or more solid of its parts, where it acts as an emetic, cathartic, or astringent; the residuum, which is left after distillation, will remain in full possession of them; and therefore the operator may husband it accordingly.

Of these waters, though they all bring over something besides phlegm, as is manifest from the smell and taste of the respective simples whence they are drawn; yet it is so faint in some of them, that they will not keep long without mothering and growing ropy. Such therefore should have a small quantity of spirit thrown into the still with them; about one pint to each gallon intended to be drawn; which will not alter the virtues, but make the water keep much longer. The waters, whose excellency consists in their flavour, as the orange-flower and damask-rose waters, ought to be drawn into a receiver fitted to the worm with a bladder, as before directed under the Preparation of Simples; so that no particles may exhale and be lost. As for the red and white-rose waters, which are expected in the shops, they are very honestly deceived, who have damask-rose water diluted, put upon them for the other; because there is nothing rises from either in the still, but what is common to them all; which is in the scent: and therefore, as the damask most abounds with that, it is very imprudent and ill husbandry to distil the other; although the residuums are as different as can be; that of the damask being purgative, and that of the red astringent, as was before observed.

Spirituos Waters of the London and Edinburgh Pharmacopœias.

L. D. *Aqua Alexiteria Spirituosa.*
Spirituos Alexiterial Water.

Take of spearmint leaves, fresh, half a pound; angelica leaves, fresh, sea wormwood tops, fresh, each four ounces; proof spirit, one gallon; water as much as will prevent burning. Distil off one gallon.

This is a tolerable pleasant water; it is looked upon as an alexipharmic and stomachic, and in these intentions is not unfrequently made use of in juleps, &c.

L. D. *Aqua Alexiteria Spirituosa cum Aceto.*

Spirituos Alexiterial Water with Vinegar.

Take of spearmint leaves, angelica leaves, each half a pound; sea wormwood tops, four ounces; proof spirit, one gallon; water, as much as is sufficient to prevent burning; vinegar one pint.

Distil the fresh herbs with the spirit and water, drawing off one gallon; and add to this the vinegar.

Perhaps it would be more eligible to add the vinegar occasionally; for when mixed with the liquor at first, it is apt to throw down, upon keeping, some of the more valuable parts which the water received from the herbs. This water is given instead of the *Aqua Theriacalis* or treacle water.

L. D. *Aqua Seminum Anisi composita.*
Compound Aniseed Water.

Take of anise seeds, angelica seeds, each half a pound; proof

spirit, one gallon; water, as much as is sufficient to prevent burning. Draw off by distillation one gallon.

This is a very elegant anise seed water, the angelica seeds greatly improving the flavour of the anise; it is apt to turn out milky, if drawn so low as here ordered.

L. D. *Aqua Corticum Aurantiorum Spirituosa.*

Spirituos Orange Peel Water.

Take of outer rind of Seville orange peel, dried, half a pound; proof spirit, one gallon; water, as much as is sufficient to prevent an empyreuma. Distil off one gallon.

This is considerably stronger of the orange peel than the simple water. It is used as a cordial, stomachic, and carminative.

L. D. *Aqua Seminum Cardamomi.*

Cardamom Seed Water.

Take of lesser cardamom seeds, freed from the husks, four ounces; proof spirit, one gallon; water, as much as is sufficient to prevent burning. Distil off one gallon.

This water is a grateful cordial and carminative, the cardamom seeds giving over in this process the whole of their flavour. It is not perhaps very necessary to be at the trouble of separating the husk, for these communicate nothing disagreeable; if employed unhusked, a proportionably larger quantity of them must be taken.

L. D. *Aqua Seminum Carui.*

Caraway Water.

Take of caraway seeds, half a pound;

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pound; proof spirit, one gallon; water, as much as will prevent burning. Distil off one gallon.

This is a cordial in common use: it contains the flavour of the caraway seeds in perfection.

E. D. *Aqua Carui Spirituosa.*

Spirituos Caraway Water.

Take of carui seeds, half a pound; proof spirit, a gallon, macerate two days in a close vessel; then add water enough to prevent an empyreuma, and so draw off a gallon.

In the same manner is prepared a gallon of spirituous water, from cinnamon, half a pound; pepper-mint, a pound and half; nutmegs well bruised, two ounces; and Jamaica pepper, half a pound.

L. D. *Aqua Cinnamomi spirituosa.*

Spirituos Cinnamon Water.

Take of cinnamon, a pound; proof spirit, a gallon; water, so much as will prevent burning. Draw off by distillation one gallon.

The author of the *Pharmacopœia reformata* proposes making this water by mixing the *aqua cinnamomi simplex* with somewhat less than an equal quantity of rectified spirit: on shaking them together, the liquor loses its milky hue, soon becomes clear, and more elegant than the water distilled as above: it is equally strong of the cinnamon, and free from the nauseous taint which the common proof spirits are impregnated with.

L. & E. *Aqua Juniperi composita.*

Compound Juniper Water.

Take of juniper berries, one pound; sweet fennel seeds, caraway seeds, each an ounce and a

half; proof spirit, one gallon; water, as much as is sufficient to prevent burning. Distil off one gallon.

This water, mixed with about an equal quantity of the rob of juniper berries, proves an useful medicine in catarrhs, debility of the stomach and intestines, and difficulty of urine. The water by itself is a good cordial and carminative.

L. D. *Aqua Menthe Piperitidis spirituosa.*

Spirituos Pepper-mint Water.

Take of pepper-mint leaves, dry; a pound and a half; proof spirit, a gallon; water, as much as is sufficient to prevent an empyreuma. Draw off by distillation one gallon.

This water is made use of in flatulent colics and other like disorders; in which it oftentimes gives immediate relief. It is not near so strong of the pepper mint as the simple water, though the same quantity of the herb is employed in both.

L. D. *Aqua Menthe Vulgaris spirituosa.*

Spirituos Spearmint Water.

Take of spearmint leaves, dry, a pound and a half; proof spirit, a gallon; water, as much as will prevent burning. Distil off one gallon.

This water is also considerably weaker of the mint than the simple water: nevertheless, if the spirit be good, the medicine turns out a very elegant one, and preferable, in weakness of the stomach, reaching to vomit, and the like, to many more elaborate preparations.

L. D. *Aqua Nucis Moschatæ.*

Nutmeg Water.

Take of nutmegs, two ounces ; proof spirit, a gallon ; water, as much as will prevent burning. Draw off by distillation one gallon.

This water (with the addition only of some hawthorn flowers, an article of very little significance) was formerly celebrated in nephritic disorders, under the name of *aqua Nephritica*. At present, it is regarded only as an agreeable spirituous liquor, lightly impregnated with the nutmeg flavour.

L. D. *Aqua Pulegii spirituosæ.*

Spirituos Penny-royal Water.

Take of penny-royal leaves, dry, a pound and a half ; proof spirit, a gallon ; water, as much as will prevent burning. Distil off one gallon.

This water has a good share of the flavour of the penny-royal, and is pretty much in use as a carminative and antihysteric.

L. D. *Aqua Raphani composita.*

Compound Horse-Radish Water.

Take of garden scurvy grass leaves, fresh, four pounds ; horse-radish root, fresh, orange peel, fresh, each two pounds ; nutmegs, nine ounces ; proof spirit two gallons ; water, a sufficient quantity to prevent burning. Draw off by distillation two gallons.

E. D. Take of horse-radish, fresh, three pounds ; rectified spirit of wine, four pounds : distil in the heat of boiling water, and draw off four pounds ; to which add of the simple Jamaica pepper water, eight pounds.

Both these waters are very elegant ones, and as well adapted for the purposes of an antiscorbutic, as any thing that can well be contrived in this form.

Aqua Aromatica vulgo Mirabilis.

Aromatic Water.

Take of cinnamon, two ounces ; of fresh lemon peel, and angelica seeds, each one ounce ; of mace, half an ounce ; pepper-mint, three ounces ; French brandy, a gallon. Digest for two days, and draw off by distillation a gallon.

This is a very pleasant and elegant water ; it is warm, cordial, and carminative, and seldom fails of relieving in languors, flatulencies, and colicky pains.

Aqua Epidemia.

Plague Water.

Take of masterwort roots, a pound and a half ; of angelica seeds and elder flowers, each half a pound ; of French brandy, three gallons : let them digest two days, and draw off by distillation two gallons and a half, add to the distilled liquor two quarts of distilled vinegar.

This water is instead of the *Aqua Theriacalis* in the former Edinburgh Dispensatory, and very well adapted for putrid malignant fevers.

Compound Valerian Water.

Take of wild valerian root, a pound and a half ; of lovage seed, half a pound ; of penny-royal leaves, four ounces ; of the tops of savine, two ounces ; of French brandy, two gallons : digest for two days, and draw off by distillation two gallons of water. This is instead of the ancient bryony water ; it is less disagreeable and a better antihysteric.

E. D. General Rules to be observed in distilling Compound Waters.

I. The herbs, or parts of herbs, should be moderately dried near the time they are used ; except those which are expressly prescribed green.

II. After the requisite infusion, a quantity of water, sufficient to prevent an empyreuma, or even more, should be added.

III. It is not necessary that the time of distillation be determined by the drawing off a quantity equal to the spirit employed, but it may be advantageously continued, as long as the water distilled appears clear.

IV. The fluid which first comes over, is by some kept separate, under the name of spirit; and the other part artificially freed from its whiteness; but it is better to mix them all together, without any depuration, that the waters may contain all the virtues of the plants; the clearness and beauty being less considerations.

Compound Waters of the former Dispensatory of the College of London.

Aqua Absinthii minus composita.

The lesser Composition of Wormwood Water.

Take of the leaves of dried wormwood, two pounds; of the lesser cardamom seeds, two ounces; and of coriander seeds, half a pound. Infuse them all in four gallons of French brandy, and draw off the same quantity by distillation.

After the same manner, omitting the seeds, may be made the spirit of any medicinal plant whatsoever, that it is thought proper for such management. This indeed is commonly used in stomachic infusions, on a supposition that it claims a right to such virtues from the wormwood; but the water rising from it, partakes not of those qualities which belong to it in tincture, so that it seems only to be

carminative from the spice and seeds now ordered in it.

Aqua Absinthii magis composita.

The greater Composition of Wormwood Water.

Take of common wormwood and that of the sea, dried, each one pound; of sage, mint, and baum, dried, ana two handfuls; of the roots of galangal, ginger, *calamus aromaticus*, and elecampane, of the seeds of sweet fennel and coriander, each three drachms; cinnamon, cloves, and nutmegs, ana two drachms; of the lesser cardamoms and cubebs, ana two drachms. Cut and bruise the ingredients as they require; and after some time infusing of them in twelve pounds of French brandy, draw off the same quantity by distillation.

Aqua Angelicæ magis composita.

The greater Composition of Angelica Water.

Take of angelica root, and the leaves of carduus, ana six ounces; of baum and sage, ana four ounces; of angelica seeds, six ounces; and of sweet fennel seeds, nine ounces. Let the dried herbs and seeds be grossly bruised; and add to them of cinnamon two drachms; of cloves and mace, ana one drachm and a half; of nutmegs, and the lesser cardamom seeds, ana one drachm; of cubebs and galangal root, ana one drachm and an half; of Jamaica pepper and saffron, ana one drachm. Infuse them in two gallons of French brandy, and draw off as much by distillation.

In this are rejected the *Species Diamoscu dulcis*, and *Aromaticum Rosatum*, that were in the former; but in this the carduus avails nothing,

thing, and the sweet fennel seed is in too great a quantity : which will make the water foul and milky.

Aqua Bryoniæ comp.

Compound Bryony Water.

Take juice of bryony roots, four pounds ; the leaves of rue and mugwort, ana two pounds ; savin, three handfuls ; feverfew, catmint, penny-royal, ana two handfuls ; basil, dittany of Crete, ana one handful and a half ; orange-peels, four ounces ; myrrh, two ounces ; Russia castor, one ounce ; French brandy, eight pounds ; distil twelve pounds after proper maceration ; for the longer things of this kind infuse together, the better is the water.

If this water be drawn too low, the oily parts of the ingredients will make it milky and foul ; which some throw down with a little burnt alum ; but that spoils the medicine : and therefore it is better kept white as it is : this is a very unpleasant composition, and of very little efficacy in hysterical cases, notwithstanding it has been highly extolled.

Aqua Flor. Chamæmeli composita.

Compound Camomile Flower Water.

Take of dried camomile flowers, one pound ; of the outer peel of oranges, two ounces ; of the leaves of common wormwood and penny-royal, ana two handfuls ; of the seeds of anise, cummin, and sweet fennel, of the berries of bay and juniper, each one ounce : infuse them in one gallon of French brandy, and draw off double that quantity by distillation.

This is taken, with small varia-

tion, from Bates, and is well calculated for a carminative.

Aqua Mirabilis.

The Wonderful Water.

Take of cloves, galangal, cubebs, mace, the lesser cardamoms, nutmeg, and ginger, ana one drachm ; juice of the greater celandine, half a pound ; French brandy, two pounds and a half ; digest together for twenty-four hours ; and then distil off two pounds and a half.

The *Aqua Mirabilis* of the former edition of the Edinburgh Dispensatory seems much better contrived than this ; and is ordered as follows.

Take of the lesser cardamoms, cloves, cubebs, galangal, mace, nutmeg, and ginger, each one drachm ; the yellow part of citron peel, and cinnamon, each three drachms ; leaves of baum, three ounces : bruise them together, digest them with three pints of French brandy ; and draw off the like quantity by distillation.

The juice of celandine has nothing to do in this composition ; for its parts will afford nothing more than common water. It is generally dulcified with loaf-sugar at pleasure. If it be drawn low, the oily part of the spices will show themselves in a milky cloud, and render it unsightly. It is best therefore not to draw it lower than will keep its transparency. ; and it will then be enough sated with the spices. What runs afterwards will make an excellent carminative water ; which may be preserved under that title. Some who draw it lower, fine it with alum ; but that throws down the best part of the ingredients, and leaves the water

water much worse. Great age will make it fall without any such help; or it may be filtered out; which is the better way of the two. It is a pleasant and good cordial; and greatly breaks the wind off the stomach, and disperses flatulencies. Some put pimento instead of all the ingredients; in the proportion of two ounces to one gallon of spirit; and if the spirit be good, it can hardly be any way distinguished from the genuine sort. The *Aqua Piperis Jamaicaensis Spirituosa*, is the best *Aqua Mirabilis*.

Aqua Piperis Jamaicaensis Spirituosa. Spirituous Jamaica Pepper Water.

Take of Jamaica pepper, half a pound; proof spirit, three gallons; water enough to prevent an empyreuma. Draw off by distillation three gallons.

Compound Piony Water.

Take of lily of the valley flowers fresh gathered, one pound, and infuse them in two gallons and a half of French brandy; to the same put of lime-flowers, half a pound; of piony, four ounces; of the male piony root, two ounces and a half; white dittany and long birthwort, ana half an ounce; of misletoe of the oak and rue, ana two handfuls; of piony seeds husked, ten drachms; and of the seeds of rue, three drachms and a half; of Russia castor, cubebs, and mace, ana two drachms; of cinnamon, one ounce and a half; of rosemary flowers, six pugils; of Arabian stachas and lavender flowers, ana four pugils; of betony, clove, and cowslip flowers, ana eight pugils: of the juice of black cherries, four pounds; and from the whole draw off by distillation four gallons.

This is the same as was origi-

nally inserted by the college in their first Dispensatory, under the title of *Aqua Antiepileptica Langii*. The quantities also of some of the ingredients are blameable, as three drachms and a half (extremely exact!) of the seeds of rue; when the whole might be taken in substance at one dose, without any visible effect. The like may be also observed of some of the ingredients of efficacy.

Aqua Protheriacalis.

A Succedaneum for Treacle-Water.

Take scordium, *i. e.* water-germander, scabious, carduus bened. goats rue, ana two handfuls; fresh citron and orange peel, ana half an ounce; seeds of citron, hart-wort, and treacle-mustard, ana one ounce; flowers of marigold and rosemary, ana one handful; cinnamon two drachms; French brandy two pounds; and draw off six pounds.

This is designed to use as the treacle-water; when that proves deficient in seasons not fit to make it. The seeds of carduus, and its distilled water, were before ordered; but are here justly left out as insignificant: and the cinnamon is a good addition: but the carduus and goats rue are useless.

Aqua Scordii comp.

Compound Scordium Water.

Take of the juices of goats rue, sorrel, scordium, and citrons, ana one pound; London treacle, two ounces: digest for three days, and then distil off the water.

This will keep better, if the herbs (though none signify much besides the scordium) be put into an alembic with a sufficient quantity of water, and two pounds of spirit of wine with them; drawing off about one gallon: for otherwise

otherwise the water will not keep long without souring. Its virtues may be best known by those of the simple, whence it takes its name.

Aqua Doctoris Stephani.

Dr. Stephens's Water.

Take of cinnamon, ginger, galangal, cloves, nutmegs grains of paradise, of the seeds of anise, sweet fennel, and caraway, ana one drachm; of the leaves of thyme, mother of thyme, mint, sage, penny-royal, rosemary, flowers of red roses, camomile, origanum, and lavender, ana one handful; French brandy, six pounds; and draw off one gallon by distillation.

All the ingredients of this composition well suit the main intention of a cephalic, a cordial, and carminative. It is likewise something hysterical; and therefore frequently used by the midwives amongst their women; though some for the pleasantness only of it to the palate, leave out the penny-royal; but then they rob the medicine of a principal ingredient.

Treacle Water.

Aqua Theriacalis.

Take of the juice of green walnuts, four pounds; of the juice of rue, three pounds; of carduus, marigold, and baum, ana two pounds; of fresh gathered butter-bur roots, one pound and a half; of burdock, one pound; of angelica and mallow-wort, ana half a pound; of green scordium, four handfuls, of old Venice treacle and Mithridate, ana eight ounces; of lemon juice, one pound; of French brandy, one gallon and a half: draw off by distillation three gallons and a half; and then add four pounds of distilled vinegar.

And doubtless it would be better to add the lemon juice also after distillation. The predominant flavour of this water is from the rue and angelica, the rest only make it offensive: the species of the theriaca employed in half an ounce of the water, its usual dose, amounts not to a single grain: no composition in the shop partakes more of antient superstition than this.

From Bates and Others.

Aqua Antiscorbutica.

Antiscorbutic Water.

Take of the leaves of fumitory, water-creffes, both sorts of scurvy-grass, and brook-lime, ana twelve handfuls; harts-tongue, succory, pine-tops, germander, horehound, agrimony, and the lesser centaury, ana ten handfuls: Roman wormwood, liverwort, ana four handfuls; bryony roots, half a pound; roots of female fern, sharp-pointed dock, the inner barks of bitter-sweet, and ash, ana six ounces; seeds of ash (*i. e.* what are called the ashen-keys) one ounce and a half; angelica, half an ounce: let them be all bruised together, and put to six pounds of Rhenish wine, in which a piece of iron of a pound has been twenty times quenched: then let all be strongly pressed from the ingredients, and put into a glass body; to which fit a receiver; and in a sand-heat draw off till the remainder grows as thick as honey; which may be kept under the title of *Extractum Antiscorbuticum*: stirring into it in fine powder, treches of capers six drachms, and of the prepared filings of iron one ounce and a half.

This has some useless ingredients, but makes a very good water for the purposes expressed by its title;

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title ; and may be used in about the same quantity, and in the same cases as the compound horse-radish water of the college. Its extract likewise will make a good medicine ; taking care to stir it down often at first, if the powder of iron ferments it ; which it is very likely to do some time after mixture. This is not kept in the shops ; or made but by particular prescription.

Aqua Camphorata.

Camphorated Water.

Take Roman vitriol and bole armoniac, ana four ounces ; camphor one ounce ; and powder them together. Of this mixture sprinkle one ounce at a time into four pounds of boiling water, in which stir it well about ; then take it off the fire ; let it settle, and decant that which is clear, by inclination.

This is an excellent medicine for many purposes externally ; it greatly cleanses ulcers, by washing them frequently with it warm. It almost infallibly cures defluxions of rheum upon the eyes. If it be too sharp for that use, it may be diluted with a little water, at the time of application. It keeps the gums clean and firm to the teeth, if they are frequently rubbed with it.

Aqua Cephalica.

Cephalic Water.

Take male piony root, four ounces ; angelica, and valerian, ana one ounce and a half ; avens, one ounce ; leaves of sage, rosemary, betony, marjoram, baum, flowers of lavender, betony, piony, marigolds, sage, rosemary, lilies of the valley, and of the lime-tree, ana one handful ; starch, one ounce and a half ; red roses, cowslips, ana two handfuls ; rhodium wood, yellow sanders, ana six

drachms ; nutmegs, one ounce and a half ; galangals, half an ounce ; cardamoms and cubeb, ana three drachms : bruise and infuse them all in fourteen pounds of the best white-wine, for ten days : then add one pound of cinnamon, which let stand in infusion two days longer ; and then distil off as much as the wine put on.

This is, in the main, an excellent composition for the purpose its title expresses, though there are two or three ingredients in it that are useless.

Aqua Hormini comp.

Compound Clary Water.

Take fresh leaves of clary, twelve handfuls ; sprinkle upon them one pound of spirit of wine, and distil to driness in a cold still : to what comes off put ten handfuls of fresh leaves, of flowers of archangel six handfuls, and make a second distillation ; which repeat with fresh ingredients, and the same liquor, a third time ; adding to the last one ounce of nutmegs, and letting the water distil upon six ounces of fine sugar in a bottle : wherein is suspended in a rag three grains of ambergrise.

All these materials except the nutmegs, are very unfit for distillation ; but the frequent repetition makes the water somewhat partake of them. It is very pleasant, and amongst the good women in great esteem against abortion, the whites, and other female weaknesses. But the ambergrise will give the vapours to a great many, with whom such sweets do not agree.

Aqua Styptica Camphorata.

Take of camphorated vitriol : one ounce ; steep in it three pounds
of

of spring-water, and let it stand till the fæces are fallen to the bottom.

Aqua Aluminosa.

Alum Water.

Take of red rose and plantain-water, each one pound ; of white mercury sublimate and roch-alum, each two drachms : let the alum and sublimate be rubbed together, and be both boiled with the waters, in a glass vessel having a narrow neck, to the consumption of half the quantity ; and after five days, when the fæces are settled, pour off the clear for use.

These are chiefly for external uses ; and most commonly come under the direction of the surgeon, in ulcers and cutaneous eruptions. The steam of the alum-water, when boiling, is carefully to be avoided by the operator ; because it may have bad effects from its poisonous qualities. It was first prescribed by Fallopius, *cap. 93. De Morbo Gallico.*

From the Royal Dispensatory by Zwelfer.

Aqua Nephritica.

Water against the Gravel and Stone.

Take the kernels of black cherries two ounces, of peaches six ounces, of bitter almonds four ounces : beat them to a thin paste in a mortar, with Malaga or Rhenish wine : then take seeds of smallage, treacle-mustard, gromwel, and parsley, each two ounces ; which beat in like manner ; and mix with the former. To both these put four ounces of juniper-berries, and half an ounce of winter-cherries green ; fresh garlick, two ounces ; onions, six ounces ; leeks, four ounces ; pimpernel, three ounces ; horse-radish, half a pound ; calamus aromaticus, three ounces ; leaves of wall-rue,

four ounces ; cinnamon, three ounces ; mace and nutmegs, each one ounce : put them together to macerate in one gallon of Rhenish wine, spirit of black cherries half a pound, water of black cherries and parsley, each one pound : then in a large retort, with a sand-heat, the juncture of the receiver being well luted, draw off the water to driness.

This is as well contrived for its intention, as any thing by distillation could possibly be. The spirit and water of black cherries, and of parsley, are of little moment ; it may be given from one to three or four ounces, and repeated as often as the exigency of the case requires.

From private Practice.

Aqua Antiphthifica.

A Water against Consumptions.

Take snails fresh out of the garden, with their shells, four pounds ; leaves of liver-wort, lung-wort, ground-ivy, scabious, Paul's betony, self-heal, each six ounces ; crust of bread, half a pound ; conserve of red roses and succory-flowers, each twelve ounces ; nutmegs, No. 6. Let all be bruised together into a mash ; and pour upon them of milk, hot from the cow one gallon and a half ; stirring them well together : about an hour after put to them of Malaga wine one gallon, damask rose water two pounds, and draw off with a sand-heat two gallons.

This water was long kept in a particular shop, for the use only of the prescriber, who was a physician of great note ; many instances are produced of persons recovered almost from the grave, by drinking it in great plenty, for a considerable time together ; but it must be fresh made pretty often, because

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because it has hardly spirit enough to keep it long in hot weather without souring; and such waters ought always to stand in a cool cellar or vault, where they will keep the longer from alteration. This composition yields as much to deserve the title it stands under, as any that can be well contrived: and because the college Dispensatory has very little under this intention, we shall give the reader his choice of two or three more of the like kind.

Another.

Take garden-snails, six pounds; earth-worms, three pounds; leaves of clary, comfrey, sage, and ground-ivy, each six handfuls; nutmegs, one ounce and a half; cloves ten drachms: reduce the spices to a gross powder, and bruise all the other together into a mash; and then pour upon them one gallon of new milk; Brunswic mum and Malaga wine, each six pounds: draw off by a sand-heat two gallons; to which put two drachms of saffron, tied in a rag, and half a pound of fine loaf sugar: and keep it in a cool cellar for use.

Another.

Take garden snails, two gallons; earth-worms, four pounds; mash them together, and put them into an earthen pan, with two gallons of the strongest spruce-beer; which stir well together, and let it stand an hour or two. Then take colts-foot, clary, comfrey, pine-tops, horehound, and ground-ivy, each four handfuls. Take out the stalks and lower parts of each plant, bruise them all together, and mix with the former: to which add of nutmegs, two ounces, benjamin four ounces, and saffron one ounce; which have a week before stood in infusion with one gallon of

a clean cyder spirit: throw in all these together with one gallon of new milk; and distil almost to driness: to each pound put one ounce of the finest sugar, and keep it for use.

This will keep without much danger of decay; and is a most admirable medicine for the purpose it is prescribed.

Aqua Antiscorbutica.

Water against the Scurvy.

Take sage and mint, each two handfuls; water-creffes and brook-lime, each four handfuls; and six nutmegs: bruise all together, and put it into a still with two gallons of white wine; to which quantity draw off the water; taking care of the junctures as much as can be.

This is very easily made, both by reason of the plenty of the ingredients, and their small cost: and it makes a good water to drink of, almost at pleasure, during any antiscorbutic course of medicines. For these are not to be depended on alone; though the pleasantness of the form makes them most eligible.

Another.

Take guaiacum, grossly powdered, one pound; saffrafras, in small chips, half a pound; Winter's bark bruised, four ounces; of oranges and lemons, each three ounces: put all these together into three gallons of proof sugar spirit; and let them stand a week or two, stirring the ingredients sometimes; then take both sorts of scurvy-grass, fresh gathered, ana twenty-handfuls; brook-lime and water-creffes, each six ounces; flowers of broom, five handfuls; sharp-pointed dock root, ofcelandine, straw-berries, each four ounces; camomile flowers, two handfuls;

juniper-berries eight ounces : let these be cut and bruised, as they severally require ; and put with the dry ingredients, and the spirit wherein they are infused, into an alembic with four pounds of lime-juice, and a sufficient quantity of water. Then draw off six gallons ; taking care to join the receiver to the worm by a bladder, especially at the first running, else a great deal of the volatile parts will be lost.

This takes in almost the whole circle of antiscorbutics, that are capable of communicating any virtues to a medicine of this form. In any ill habit of body from indigestion, bad air, diet, or any other cause, this is a good medicine ; and will, by continued use, mightily deterge and scour the viscera and glands, so as to bring them to perform their proper offices. The kidneys, which are loaded with fabulous or slimy matter, as they often are, and discover it by heat and pains in the small of the back, will be wonderfully relieved by the use of such a medicine, if it be continued. In all cutaneous foulnesses, and even in obstinate leprosy, this, with other proper helps, will go a great way towards a cure : and these ingredients will not be by much so nauseous in this form as they are in infusion, and in diet-drinks ; where they are frequently prescribed.

Aqua Anhaltina.

Anhalt Water.

Take of the best turpentine, half a pound ; olibanum, one ounce ; wood of aloes powdered, three drachms ; grains of musk, clove July flowers, or rosemary flowers, nutmegs, cubeb or galangals, and cinnamon, each six drachms ; sa-

fron, two drachms and a half ; fennel seeds and bay-berries, each half a drachm : powder the whole, and digest them in five pints of spirit of wine six days, adding fifteen grains of musk inclosed in a little bag ; then distil slowly in *balneo*, and separate the clear part of what comes over from the turbid.

This water is a high aromatic cordial ; and consequently antihysteric and corroborative, invigorating more particularly the intestines, and thence promoting digestion and dispelling flatulencies. But it is more frequently used externally than given inwardly, being reputedly of great service in catarrhs and pains supposed to arise from a mild cause ; as also in palsies, epilepsies, apoplexies, vertigos, tremors, and lethargies, the part affected being well rubbed with it. This water is not hitherto much regarded here, but it holds a considerable place in the prescriptions and writings of foreign physicians. Some of the ingredients however may be advantageously retrenched ; the galangals and cubeb more properly imparting their virtues to decoctions than distilled waters, as their efficacious part is not volatile ; and the fennel seeds and bay berries seem very insignificant, if not injurious ingredients.

Aqua Melissæ composita, commonly called *Eau de Carmes*.

Take of the fresh leaves of baum, four ounces ; yellow rind of fresh lemon peels, two ounces ; nutmegs and coriander seeds, each one ounce ; cloves, cinnamon, and the root of angelica, each half an ounce : having bruised the leaves, and pounded the other ingredients, put

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put them with a quart of brandy into a glass cucurbit, of which stop the mouth, and set it in a warm place, to remain there two or three days. Add then a pint of simple balm water, and shake the whole well together : after this distil *guttatim in balneo*, till the ingredients are left almost dry ; and preserve the water thus obtained in bottles well stoped.

This water has been long famous at Paris and London, and carried thence to most parts of Europe : it has the reputation of being a cordial of very extraordinary virtues, and not only of availing in all common lowness of the spirits, but even in apoplexies ; and it has been also much esteemed in cases of the gout in the stomach. It is indeed a very elegant drain ; and the great benefit the Carmelite friars have reaped from the making it has had its principal source in that : but notwithstanding the great care they have taken to keep their recipe a secret, this is said on good authority to be the method by which they prepare it.

Aqua Sclopetar' a five Vu'neraria.
Vulnerary Water, or *Eau d'Arque-
busade*.

Take of the leaves and roots of comfrey, leaves of sage, of mugwort, and of bugle, each four handfuls ; leaves of betony, of fennel, and of the ox-eye daisy, the greater figwort, plantane, agrimony, vervain, wormwood, and fennel, each two handfuls ; St. John's wort, long birth-wort, orpine, Paul's betony, the lesser centaury, yarrow, tobacco moutecar, mint, and hyssop, each one handful ; cut them and bruise them well in a mortar ; then put them into a large earthen vessel ; pour

twenty pints of white wine upon them ; and stir the whole well together ; close up the vessel, and digest in a warm dunghill or similar heat twenty days ; then pour the whole matter into an alembic of pewter, or copper tinned, and distil off the fluid ; which when thus obtained, is the *Eau d'Arquebusade*, and must be preserved in a close stopped bottle.

This water is in great reputation abroad ; and highly esteemed by many here : it is principally used externally in contusions ; the tumours that attend dislocations, fractures, and mortifications ; it is also, but less properly, applied by some to deterge foul ulcers, and incarn wounds.

Aqua Ophthalmica. Eye-Water.

Take white vitriol and bay salt, ana one ounce ; pour upon them in an earthen pan, one pound of boiling water : stir them together, and let them stand some hours : a variously coloured skin will fix upon the surface ; which carefully take off, and put the rest in a phial for use.

This very safely cools and repels those sharp rheums which sometimes fall upon the eyes ; and clears them of beginning films and specks. If it be too sharp, it may be diluted with a little spring or rose water. To disguise it, a flavour might be given it with an odoriferous water.

Medicated Waters.

L. D. *Aqua Vitriclica Cærulea.*

Roman Vitriol Water.

Take of blue, or Roman vitriol, three ounces ; alum and strong spirit, or oil of vitriol, each two ounces ; water one pint and half ;

B b

boil

boil the salts in the water to dissolve them, then add the oil of vitriol, and filter them through paper.

E. D. *Aqua Styptica.*
Styptic Water.

Take of blue vitriol, alum, each three ounces ; water, two pints. Boil them until the salts are dissolved, then filter the liquor, and add to it an ounce of the oil of vitriol.

These compositions are formed upon the styptic recommended by Sydenham, for stopping bleeding at the nose, and other external hæmorrhages : for this purpose, cloths or doffils are to be dipt in the liquor, and applied to the part.

L. D. *Aqua Vitriolica Camphorata.*
Camphorated Vitriol Water.

Take of white vitriol half an ounce, camphor two drachms, boiling water two pints, dissolve the vitriol by mixing them, and when the fæces have subsided, filter through paper.

E. D. *Aqua Vitriolica.*
Vitriol Water.

Take purified white vitriol, sixteen grains ; pure water, eight ounces ; weak spirit of vitriol, sixteen drops. Dissolve the vitriol in the water, then add the acid, and filter the whole through paper.

Both these liquors are very useful ophthalmics ; they cool, and repel the sharp humours of the eyes, and prevent films and specks.

L. D. *Lotio Saponacea.*
The Sope Lotion.

Take of damask rose-water, three quarters of a pint ; oil of olives, one quarter of a pint ; lixivium of salt of tartar one spoon-

ful : stir the oil of olives and the lixivium of tartar together, till they are mixed, then add the water gradually.

This is designed for a detergent wash, and, like other soapy liquors, answers this purpose very effectually. Where it is required to be more deterfive, it may be occasionally rendered so, by the addition of a small quantity of a solution of any fixed alkaline salt.

L. D. *Aqua Calcis simplex.*
Simple Lime-Water.

Take of quick-lime, one pound ; water, twelve pints : pour the water gradually upon the lime, and when the ebullition is over, let the whole stand to settle ; then filter the liquor through paper.

Aqua Calcis.
Lime-Water.

Take of quick-lime, one pound ; pour on, by degrees, of water two gallons : stir them well together, and when the lime has subsided, pour off the clear liquor, which is to be kept in close vessels. This water may likewise be made from calcined oyster-shells.

This liquor should be set in a cool place, and not kept too long ; for, on long standing, great part of what the water had taken up from the lime, will be separated in form of a fine white cream.

The change produced by this process is very remarkable : notwithstanding the extreme acrimony of the quick-lime itself, neither the part which the water extracts, nor that which is left behind, nor the vapour which exhales, have any considerable acrimony : the remaining lime is almost insipid ; the solution has only a rough drying taste ; the vapour being caught, proved

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proved almost merely aqueous, and very slightly alkalescent.

Lime-water has been found of great service in scrophulous and scorbutic complaints, some kinds of alvine fluxes, female weakneses, and other disorders proceeding from a laxity and debility of the solids, particularly in corpulent and phlegmatic habits. It is given internally, in the dose of a quarter of a pint, three or four times a day; and likewise used externally for washing foul ulcers.

Aqua Calcis composita.

Compound Lime-Water.

Take of saffraas root and bark, shaved, two ounces; nutmegs, three drachms; liquorice, sliced, or well bruised, one ounce; lime-water, fresh made, four pints; digest the lime-water with the roots and nutmegs for two days, in a close vessel; then strain the liquor.

This composition is taken from Bates's Pharmacopœia; but the raisins there ordered are here omitted, as they never fail to ferment and spoil the medicine.

L. D. *Aqua Calcis minus composita.*

Lime-Water less compounded.

Take of liquorice, one ounce; saffraas bark, half an ounce; simple

lime-water, six pints. Macerate without heat for two days, and then strain off the liquor.

L. D. *Aqua Calcis magis composita.*

Lime-Water more compounded.

Take of guaiacum wood, shaved, half a pound; liquorice, one ounce; saffraas bark, half an ounce; coriander seeds, three drachms; simple lime-water, six pints: macerate without heat for two days, and then strain off the liquor.

In these compositions, the additional articles take off the ill flavour of the lime-water, render it more grateful both to the palate and stomach, and at the same time considerably promote its medicinal efficacy, especially when intended against cutaneous disorders, and foulnesses of the blood: the dose is the same as of the simple lime-water.

Aqua Phagedænicæ.

Phag-dænic Water.

Dissolve half a drachm of sublimate mercury in a pint of lime-water.

This is designed for washing and cleaning old foul ulcers, and preventing the growth of fungous flesh; it is rather too corrosive to be used without dilution.

Distilled Spirits.

L. D. *Spiritus Rosmarini.*

Spirit of Rosemary.

Take of rosemary tops, fresh gathered, a pound and a half; proof spirit one gallon: distil in the heat of a water-bath, till five pints are come over.

E. D. *Spiritus Rosmarini, vulgo,*

Aqua Regina Hungariæ.

Hungary Water.

Take of rosemary flowers, just gathered, two pounds; rectified spirit of wine, a gallon: put them

together, and immediately distil in a water bath.

This spirit is very fragrant, in so much as to be in common use as a perfume. It is difficult to make it in the requisite perfection: the vinous spirit should be extremely pure; the rosemary tops gathered when the flowers are full blown upon them, and committed immediately to distillation; particular care being taken not to bruise or press them.

L. D. *Spiritus Lavendulæ simplex.*
Simple Spirit of Lavender.

Take of lavender flowers, fresh gathered, a pound and a half; proof spirit one gallon. Draw off, by the heat of a balneum, five pints.

The same cautions are to be observed here, as in the distillation of the foregoing spirit. Both of them, when made in perfection, are very grateful and fragrant: they are frequently rubbed on the temples, &c. under the notion of refreshing and comforting the nerves; and likewise taken internally, to the quantity of a teaspoonful, as a cordial.

E. D. *Spiritus Lavendulæ Simplex.*
Simple Spirit of Lavender.

Take of the spikes of flowering lavender, fresh gathered, two pounds, rectified spirit of wine a gallon; with the heat of boiling water draw off a gallon.

L. D. *Spiritus Lavendulæ compositus.*
Compound Spirit of Lavender.

Take of simple spirit of lavender, three pints; spirit of rosemary, one pint; cinnamon, nutmegs, each half an ounce; red sanders, three drachms: digest them to-

gether, and then strain out the spirit for use.

The digestion should be performed without heat, and not too long continued; otherwise the flavour of the spirit will be considerably injured.

E. D. *Spiritus Lavendulæ compositus.*
Compound Spirit of Lavender.

Take of the simple spirit of lavender, three pints; spirit of rosemary, one pint; cinnamon, one ounce; aromatic cloves and nutmegs, of each half an ounce; red sanders, three drachms; macerate seven days, and strain. The red sanders is of no use in these compositions, but as a colouring ingredient.

The compound spirit of lavender of the former London Pharmacopœia is as follows:

Take of lavender flowers, one gallon; sage flowers, rosemary flowers, betony flowers, each one handful; borage flowers, bugloss flowers, lilies of the valley, cowslips, each two handfuls; balm leaves, feverfew leaves, orange tree leaves, orange flowers, stachas flowers, bay berries, each one ounce; French brandy four gallons.

Pour the brandy on the other ingredients fresh gathered; and, after suitable digestion, draw off in balneo mariæ two gallons and a half. To this spirit add the following ingredients: citron peel, yellow sanders, each six drachms; cinnamon, nutmegs, mace, lesser cardamom seeds, cubebs, each half an ounce; aloes wood, one drachm.

Digest these together for twenty-four hours; then filter the spirit, and suspend it in the following ingredients

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gredients (where they are judged proper) tied up in a thin linen cloth; viz. of musk, ambergrise, saffron, each half a scruple: red roses dried, red saunders, each half an ounce.

All these spirits are grateful reviving cordials; the first, though considerably the most simple, is not inferior, in elegance, to either of the others. This medicine has long been held in great esteem, under the name of palsy drops, in all kinds of languors, weakness of the nerves, and decays of age. It may be conveniently taken upon sugar, from ten to eighty, or an hundred drops.

Spiritus Aurantiorum.

Spirit of Oranges.

Take fresh orange peels, cleared from the white, one pound; of proof spirit, two gallons: draw off in an alembic one gallon and half, and dulcify it with fine loaf-sugar at pleasure.

This makes an admirable pleasant cordial dram, and can hardly be exceeded by any thing, if a few fresh orange flowers be strewed upon its surface afterwards, as directed in the *Aqua Odorifera* with the jessamy. The last running makes a good carminative; and if no such use takes it off in the shop before, it will be worth keeping, to throw into the still at the next making of the spirit. After the same manner are to be made the spirit of citrons, lemons, or any thing of the like kind; and their flavour will be greatly heightened with the least touch imaginable of ambergrise. From any spice, plant, seed, &c. likewise is their spirit thus to be made.

Spiritus Castorei. Spirit of Castor.

Take the best Russia castor, four ounces; dried flowers of lavender, one ounce; of sage and rosemary, half an ounce; cinnamon, six drachms; of mace and cloves, ana, two drachms; rectified spirit of French wine, six pounds: digest and draw off the spirit in a retort in B. M. to driness.

This is a much better medicine, for many purposes, than the tincture of castor, because it is much pleasanter both to the sight and taste; it may be given from ten to thirty, or forty drops, in any convenient vehicle.

Spiritus Croci. Spirit of Saffron.

Take of the best English saffron, four ounces; spirit of wine, four pounds: let them digest together in a retort for a week or two, then in a sand-heat draw off the spirit to driness. Put to the residuum two pounds more of spirit, and after the same digestion draw that off also, and mix with the former. Put the whole back again, and draw a third time. Let the residuum be clean rinsed out with a little fresh spirits, as little as can be; then strain it hard, and evaporate the liquor into an extract.

By repeating the distillation, the saffron may almost all be brought over; but the junctures must be well luted, and all parts of the operation managed with dispatch and dexterity; else as much of the finer parts will be lost, as will be obtained by such repetition. What is got indeed this way, is lost in the extract; and therefore the operator may manage it as either of the medicines are depended upon. If the spirit be but once drawn, the residuum may be mixed and

digested with a sufficient quantity of Canary; then strained, clarified, and made into a syrup; as good as can be made from the fresh saffron; for in the distillation nothing rises, which can be retained in a syrup, howsoever made. This spirit is one of the greatest cordials which medicine can produce; and has the advantage, at the same time, of being a noble alexipharmic, and disposing the patient to sweat, if duly encouraged. It may be given from one drachm to one ounce, or more for a dose; and repeated as often as there is occasion, in any proper diluter. The extract is seldom given alone; and is fit for no form but pills, or boles, wherein it may be mixed from two to twelve grains, for a dose. From Bates.

Spiritus Theriacalis camphoratus.

Spirit of Treacle camphorated.

Take Venice treacle, five ounces; myrrh, ten drachms; saffron, half an ounce; camphor, two drachms; spirit of wine rectified, ten ounces: put them into a retort; and draw off to driness in a sand-heat.

As the camphor all dissolves in the spirit, it is too much loaded with it; because, by its extraordinary heat, the dose is required but small. It is certainly a most commendous medicine; and an extraordinary alexipharmic. Dose from one scruple to one drachm.

Spiritus Anti-Epilepticus Puerorum.

An Anti-Epileptic Spirit for Children.

Take flowers of lavender, rosemary, marjoram, and sage, each two handfuls; castor, two ounces; camphor, three ounces; spirit of wine, three pounds; *Sal Ammoniac*, four ounces; salt of tartar, three

ounces; and simple lavender-water, enough to cover the ingredients. Then after a digestion of three or four days, by a retort, draw off one pound and a half, or two pounds; in which drop thirty drops of oil of rue, oil of amber twenty drops, oil of mace, and juniper, each forty drops, and they will perfectly dissolve in it.

This is taken out of the *Collectanea Chemica Leydensia*, where it stands highly recommended for all spasmodic affections, and whatsoever appears with convulsions of the nerves, and particularly in those of children. The ingredients sufficiently demonstrate its properties that way; and it is very convenient for taking; though, if the chemical oils were omitted, it would be better, and not much the worse in efficacy: for the other ingredients pretty well fate it, in so much as to turn any aqueous vehicle it is dropt into milky. It may be given from two drops to twenty, in any proper liquor, and repeated according to the urgency of the symptoms.

Olea per Distillationem.

Oils by Distillation.

The oils obtainable by distillation from vegetable matters are divided into two classes. The first comprehends such oils as possess the smell, and sometimes the taste, of the subject from which they were drawn: these are called essential. The second takes in those which bear little or no resemblance to the original vegetable, being so altered by the process for obtaining them, that they all appear to the senses nearly similar, agreeing in one common burnt smell or taste; whence they are named empyreumatic. The
essen.

essential oils are obtainable only from a few, the empyreumatic from every kind of vegetable matter.

L. D. These oils are to be procured by distillation in an alembic, with a condenser, or refrigerating vessel sufficiently large; but to prevent an empyreuma, or burnt scent, from rising, water must be added to the matter to be distilled, in which that should also be previously steeped. The oil comes over together with the water, and sinks below, or floats above it, according to their specific gravities.

E. D. In order to obtain the essential oil of herbs, they should be moderately dried, then macerated a few days, in as much water as that they may conveniently float in it, and lastly distilled with a degree of heat a little stronger than that necessary for distilling waters. But seeds and spices should be bruised, and woods shaved, before maceration. The time of maceration varies according to the texture of the subject. The longer the maceration is continued, the greater quantity of sea-salt must be added; the more viscid yield their oil easier, if they are fermented a little while; in this case the salt is useless.

L. D. *Oleum Absinthii.*
Oil of Wormwood.

This is very ferid and nauseous, as are all those which are drawn from plants of a tough, gummy, or balsamic tincture, as of box, saffron, &c. and therefore it is not much, or hardly at all, in internal prescription; but it is frequently ordered in emplasters, against worms in children, to be applied

to the belly; for its penetrating nauseousness is reckoned so far to get through the pores, as to disturb those ugly inhabitants, and promote their ejection. Some make also the oil of Roman wormwood: but this is a plant which affords its oil with so much difficulty, and in such small quantities, that it is hardly worth drawing, both on account of its unpleasantness and its scarcity; and therefore it is little used. And this may be taken for a general rule, in these preparations, that the easier any oil parts from its principle, the better it is for use, and brings along with it more of its virtues, for the force of extraction will, in some measure, vary its properties; and therefore does this of the Roman wormwood fall so short of the virtues of the plant.

L. D. *Oleum Anethi.* Oil of Dill.

This is drawn from the seeds, and has all the virtues of the plant; but it is not so much used.

L. D. and E. D. *Oleum Anisi.*
Oil of Anise.

This has exactly the smell and taste of the seed, because it abounds so much as to want very little force in separation, as it likewise does in most seeds, and those plants which run most to seed in their growth. This oil is a wonderful carminative, a good pectoral, and is much used. Its dose is from eight to three or four drops, on sugar; or with any convenient liquor. Most of these oils are so hot, that one drop is too great a dose; therefore they are generally, by the intermediation of sugar, dissolved in some proper liquid, and diluted so, that a dose

may not exceed a third, a fifth, or an eighth of that quantity, which is not distributable without such a management. For this reason, under each of these, an assigned dose is not to be expected; but every one may judge of the proportions proper by the heat and pungency of the oil upon the tongue; tho' some are so hot, as hardly to be endured upon such a trial; as those of origany, cloves, and some of the hot aromatics.

Oleum Anthus.

Oil of Rosemary.

This loses little or nothing of the plant; and is best drawn when the plant is in flower. It is much in the *Sal Volatile Oleosum*, especially in such kinds of it as are made extempore by insillation of essential oils into spirit of *Sal Ammoniac*, and tartarized spirit of wine, which is a common practice amongst some coarse operators, and such as work for the wholesale shops, and distant low-priced customers. Some have a trick likewise of making the Hungary-water off-hand by the same cunning: but its flavour is not by much so good as that drawn according to the directions given in their proper place; because there is some part of a volatile salt in these aromatic plants, too fine to be held in their oils, which, by close and careful distillation, may be preserved in a large quantity of spirit. And for this reason it is, that those potestates, or powers, with which Salmon stuffed his Dispensatory, and which were contrived only for quacks, and clandestine practice, will not make so good waters as the ingredients themselves, regularly distilled.

Oleum Limonum.

Oil of Lemons.

This is made of the outer yellow rind or peel, which yields most when it is just pared off. It has those virtues of the rind that make it carminative and cephalic; but it loses that which makes the other so good a stomachic: for that in which the bitter consists, will no more come over with the oil, than with the water. This is not often prescribed; and is most used to scent pomatums and unguents for the nicer sort of patients.

L. D. *Oleum Carui.*

Oil of Caraways.

This is very hot and discussive, and therefore a good carminative, and frequently used; the quantity of a drop is a dose, with cathartic pills, to prevent their griping.

L. D. *Oleum Caryophyllorum.*

Oil of Cloves.

This is heavy, and will sink in water. There is some of this imported, made from the bark of a tree which produces the spice, and is of a high red colour; but that is best which is made here, and looks pale. (It is often grievously adulterated; yet the genuine may, with care and skill, be made tolerably cheap in England.) It is used as the former, and is in great quantities in the *Pil. ex duobus*. It is very often prescribed; and in one dose of a cathartic, one drop is an outside proportion.

L. D. *Oleum Chamæmeli.*

Oil of Camomile Flowers.

The plant affords but a small quantity of this oil, as all do which feed little; and is therefore dear.

It

It is used chiefly, as the former, to correct purgers; and sometimes also it is given as a carminative in boles, a drop or two to a dose; and it often does good, by suddenly removing those flatulences which occasion stitches and pains of the side.

L. D. Oleum Cinnamomi.
Oil of Cinnamon.

This is a noble medicine, and very frequently prescribed in boles, or rubbed in powders, in all those cases where the spice it is drawn from proves useful. One drop is a good dose, it being very warm. It is a great cordial, and mightily strengthens the stomach and nerves. Many adulterate it; for what is genuine is extremely dear: that which is right sinks in water. Some make an *Oleofaccharum* with it, and thence an extemporary cinnamon-water, but it is inferior to that regularly drawn. (There are those who make excellent cinnamon-water by this means, when the oil is genuine, new, and drawn in England; and thus save the trouble and charge of a distillation.) The water used in the distillation of this oil will be impregnated so much with the spice, after all the oil is separated, that it is worth saving, either to use again for the same purpose another time, or instead of the *Aqua Cinnamomi tenuis*.

Oleum Fœniculi. Oil of Fennel.

This has the properties of the plant it comes from, but is seldom prescribed.

Oleum Hederæ. Oil of Ivy.

This is an empyreumatical fetid oil, like that of wormwood, and hardly ever used in medicine; but

it is in some esteem amongst anglers, in the composition of some of their pastes. It is by some recommended for embrocations in rheumatic pains; but is never prescribed for any such purposes.

L. D. and E. D. Oleum Juniperi.
Oil of Juniper.

This is drawn from the berries, whose virtues it very powerfully contains. It is much of the turpentine kind; and is sometimes adulterated with the oil thereof. It is usually prescribed in colics, and pains from the stone and gravel, from one to five or six drops, in any proper vehicle; and in such cases it frequently does great service: it is also a powerful diuretic, and forcibly deterges the urinary passages, which may be known by its scent in the urine.

L. D. and E. D. Oleum Lavendulæ.
Oil of Lavender.

This has much of the scent and virtues of the plant, though it is seldom or never prescribed singly; but as it makes a part in some other compositions. It is sometimes dropped upon the volatile salts for smelling-bottles; and its flavour in them is very agreeable.

Oleum Macis.
Oil of Mace.

This differs little from that of cloves, and is seldom made, and rarely prescribed; the oil made by expression being most in use.

L. D. Oleum Marjoranz.
Oil of Marjoram.

This possesses the virtues of its plant, but is very rarely prescribed.

L. D. and E. D. *Oleum Menthae.*
Oil of Mint.

This much fails of the virtues of its plant, as the oil of all astringents must necessarily do; for what gives them that property, and which, in many things, may be drawn out by tincture, will, notwithstanding, refuse to be elevated in distillation; and therefore the oil, as well as every thing else that comes over the helm, is destitute of that property. However, this is so much accounted warm and stomachic, that it is sometimes directed upon emplasters, to apply to the pit of the stomach, especially in settled nausea, and vomitings; but it is otherwise very little prescribed.

L. D. *Oleum Menthae Piperitidis*
essentiale.
Essential Oil of the Leaves of Peppermint.

This possesses the smell, taste, and virtues of the peppermint in perfection; the colour is a pale greenish yellow. It is a medicine of great pungency and subtilty, and diffuses, almost as soon as taken, a glowing warmth through the whole system. In colics accompanied with great coldness, and in some hysteric complaints, it is of excellent service. A drop or two are, in general, a sufficient dose.

L. D. *Oleum Nucis Moschate.*
Oil of Nutmegs.

This is a very pleasant oil, of the virtues of the spice it comes from; but it is much more used in compositions, than prescribed alone. It is often mixed with volatile salts to smell to, as that of lavender. It is accounted a cephalic, and

holds a place in composition under that intention; but it does not well agree with the stomach, and strangely regurgitates in some people.

L. D. *Oleum Origani.*
Oil of Origany.

This is an excellent hot oil, and seldom used inwardly; though it is a mighty thing with some people for the tooth-ach, they holding it, upon some lint or cotton in the mouth, as near the part in pain as can be.

L. D. *Oleum Pulegii.*
Oil of Pennyroyal.

This has the virtues of the plant, but is very rarely used.

L. D. *Oleum Rhodii.*
Oil of Rhodium.

This is of a wonderful fine scent, and makes one of the most delicate perfumes; for which purpose it is used in pomatums and liniments, but not otherwise. The wood from which it is drawn affords so little, that it is extremely dear, and therefore generally adulterated. A much larger proportion of this oil may be obtained than usual, by a proper management of the still, and a proper treatment of the wood before distillation; and this might be a gainful secret in some hands.

L. D. *Oleum Rutae.*
Oil of Rue with the Seed.

It is to be suspected, that this fails much of the virtues of its plant; for that is of a viscid con-texture, and has a great deal which it will not part with, so as to rise in the still. It is hardly ever prescribed.

Oleum

Oleum Salviae. Oil of Sage.

This fails of the virtues of the plant, for the same reason as that of mint; and though it stands made in the shops, it is seldom used, and hardly ever met with in prescription.

L. D. and E. D. *Oleum Sabinæ.*
Oil of Savin.

This is reckoned to contain the virtues of its plant; but is not met with in any internal prescription. Outwardly it is chiefly used to rub upon emplasters for the belly, against worms in children; and in some balsams to deterge foul ulcers.

L. D. and E. D. *Oleum Sassafras.*
Oil of Sassafras.

This has the virtues of the wood from whence it is drawn; but it is not so gratefully scented. It is seldom used, unless, by some, in venereal cases, and in rheumatic pains; but this practice is little encouraged by its success.

L. D. *Oleum Terchinthinæ.*
Oil of Turpentine.

Distil any quantity of turpentine in four times its weight of water, a limpid oil comes over after the water is evaporated; a black resin, called colophony, is left behind. This, by distillation, yields a yellow oil; urged by a stronger fire, a blackish red one, called balsam of turpentine. The limpid oil, improperly called spirit, is a true essential oil; it is a hot stimulating medicine, sometimes given as a diuretic, in the quantity of a few drops, and is very useful in cold rheumatisms.

Most of the foregoing oils are drawn by our chemists, and easily procurable in a tolerable degree of

perfection; those of cinnamon, cloves, nutmegs, and mace, excepted. These are usually imported from abroad, and are, for the most part, so much adulterated, that it is difficult to meet with such as are at all fit for use.

Nor are the adulterations of these kinds of preparations easily discoverable. The grosser abuses indeed may be readily detected: thus, if the oil is mixed with spirit of wine, it will turn milky on the addition of water; if with expressed oils, rectified spirit will dissolve the essential, and leave the other behind: if with oil of turpentine, on dipping a piece of paper in the mixture, and drying it with a gentle heat, the turpentine will be betrayed by its smell. But the more subtle artifice have contrived other methods of sophistication, which elude all trials of this kind.

Some have looked upon the specific gravity of oils as a certain criterion of their genuineness; and accordingly we have given a table of the gravity of several. This, however, is not to be absolutely depended on; for the genuine oils, obtained from the same subject, oftentimes differ in gravity as much as those drawn from different ones. Cinnamon and cloves, whose oils usually sink in water, yield, if slowly and warily distilled, an oil of great fragrancy, which is, nevertheless, specifically lighter than the aqueous fluid employed in the distillation of it; whilst, on the other hand, the last runnings of some of the lighter oils prove sometimes so ponderous as to sink in water.

The commentator, on the last edition of the Edinburgh Pharmacopœia, recommends diluting the suspected oil with a large quantity of

of rectified spirit, and then to examine it by the taste and smell, comparing it with some of known goodness. By this means we may not only distinguish whether the oil is mixed with any other; but a judgment may likewise be formed of its degree of goodness when unmixed.

The same author recommends an oil drawn from pimento, as a

cheap substitute to those of some of the dearer spices: the flavour of this oil is more agreeable than that of cloves, and does not fall far short of that of nutmegs. It is undoubtedly a very elegant oil, and is afforded by the spice in considerable quantity; forty ounces yield above one: it is of a fine pale colour, and like the oils of some of the eastern spices, sinks in water.

S E C T. II.

Of Decoctions, and Infusions.

THE two forms, of decoction and infusion, have very little share in the officinal pharmacy, because there is very little will keep when this way managed. These differ chiefly, in that the former is chose for things of an hard texture, which will not give out their efficacies without some force; and the latter for those of a laxer consistence, which immediately yield to a warm or hot water. Though if we examine the materials employed, and those few examples given of these two forms, we shall not find much regard had to these differences. The *Decoctum Epithymi* and *Decoctum Traumaticum* are however hardly ever prescribed or made, or at least not enough to require much care to be taken about them; and the *Decoctum commune pro Clystere*, and *Decoctum Pectorale*, cannot well be hurt by boiling, because there is nothing in them exhaleable to their detriment; and a little boiling may take out more of that soft substance which is requir-

ed from their ingredients, than bare infusion would.

The two bitter infusions are sufficiently known in common practice, and are for very obvious reasons much better ordered thus than by way of decoction; but the first of these would be a much more grateful bitter without the wormwood. The infusion is much found fault with for an over quantity of the *Sal Tartari*, which makes it slimy and mucilaginous; and it is certain, that so far as the salt of tartar is of use to draw out the tincture of the senna, a much less quantity is sufficient; but if it be considered as to any medicinal efficacy in itself, this much alters the case.

As it was observed, how in some compound tinctures the ingredients might be drawn separately to advantage, on account of their different dispositions for solution; so in decoction, for the same reason, some things require different periods of time in boiling. Thus where with the woods and harder

harder roots or barks there are sometimes ordered herbs, seeds, and other things of a laxer texture, the latter are best ordered to be put in, after the other have boiled their due time; not only because they leave the liquor in a better condition to draw out what is desired from those harder substances, but as themselves also, by long boiling, might suffer, in a loss of their more volatile parts.

Another remarkable circumstance in decoction is, that when agglutinants or emollients are thus managed, they by no means ought to be clarified in the common way with the whites of eggs: because all that is expected in them of any medicinal efficacy will by this means rise from the scum and be lost, or at least the greatest part of it: such things therefore will admit of being made fine only by settling, and pouring off the clear part.

What is directed in extemporaneous prescription in this form, is generally sent to the patient under the title of an apozem, commonly in the quantity of a quart at a time, to be drank of plentifully as common drink.

The usual intentions wherein tinctures and infusions are ordered in common practice, are those of cephalics, stomachics, or cathartics. The first takes in odorous and aromatic simples, and such as are called for in nervous affections; the stomachics receive the same things in conjunction with bitters; the cathartics such as are appropriated to that distinction by their purgative qualities. In all nervous cases, the odorous simples are best brought into tincture with spiritous or vinous liquors, as they most readily give out their virtues

to them; and this is best done cold; or, when heat is required, in close vessels, to prevent exhalation and loss of the better parts. Tincture or infusion likewise of the stomachics are best ordered without heat, and commonly in liquors moderately spirituous, as the ordinary white wines. And cathartics, whether resinous or saline, for extemporaneous occasions, want nothing more than hot water, as in making common tea, to draw out their virtues. The proportions of ingredients in all these cases cannot be adjusted but by examples, and experience of the patient's strength; but for cephalics and stomachics it is a certain rule never to sate a liquor with ingredients beyond what is agreeable to the palate; for an irksome cordial or stomachic almost implies an absurdity; though in hysteric affections, and where the fetid simples are required, the case is quite otherwise.

In the exhibition of the officinal tinctures of any intention, all those which are sated so with resinous or gummy simples, that they turn milky in common water, are in a more agreeable and slight manner directed in wine, where the circumstances of a patient will admit of it; and for bitters in particular, made with a vinous liquor, they are much better directed between the times of breakfast and dinner, or about an hour before the latter, than fasting, which was formerly the customary way, because they then less affect the head.

Decoction chiefly takes place with agglutinants and astringents, and is fit for those things only which will not, without some additional force, part with their medicinal virtues. In many other intentions

intentions all these forms are sometimes directed; but because the materials best fitting them generally come within the compass here mentioned, it will be sufficient to give some examples of extemporaneous forms under these intentions.

A cordial or cephalic tincture for present occasions is very readily made, and now occurs frequently in extemporaneous prescription, with the *Species Diambra*, and some generous white wine. In hysteric and hypochondriacal affections, the *Radix Cassamunair*, *Hellebori Nigri*, and others of the same tribe, are commonly directed in the *Aqua Byronia composita*, or *Pulegii*: and for a stomachic, centaury flowers, gentian root, galangal, Seville orange peels, and other things of like properties, may be drawn with any white wine. And all these are to be varied in the proportion of the ingredients to the strength of the liquor, and the quantities of a dose, according to the several circumstances of a patient.

Decoctions within the intention of an agglutinant, emollient, or strengthener, are chose out of the softer herbs, as marsh mallows, the two maiden-hairs, colts-foot, and roots of such disposition, as eringo, comfrey, and the like; and for a restraining in diarrhoeas or any kind of fluxes, from calcined hartshorn, tormentil, or bistort roots, pomegranate peels or flowers, cinnamon, and the like.

General rules for making decoctions from the Edinburgh Pharmacopœia.

I.

Vegetable substances ought to be moderately and newly dried,

unless they are expressly ordered otherwise. They ought likewise to be cut and bruised, before the menstruum is poured on them.

II.

Woods, roots, seeds, and all those ingredients which are dry and of a compact texture, are to be put in first; and the other added towards the end of the boiling: among these last, liquorice is to be reckoned.

III.

All decoctions are to be strained, and after resting for some time, poured off from the scæces, unless they are ordered to be turbid; and even in this case, they ought to be passed through a coarse strainer.

L. D. *Decoctum Album.*

The White Decoction.

Take of calcined hartshorn, prepared, two ounces; gum arabic, two drachms; water, three pints.

Boil them till only two pints remain, and then strain off the liquor.

Take of calcined hartshorn, one ounce; spring water, three pints; boil till only two pints remain, adding just before the boiling is finished one drachm of bruised cinnamon; to the turbid strained liquor add two drachms of sugar.

Decoctum Crataceum.

Chalk Decoction.

Take of white chalk one ounce, gum arabic two drachms; boil them in three pints of water to two, adding at the end of the decoction a drachm of bruised nutmeg: put half an ounce of white sugar to the turbid strained liquor.

These decoctions are used as common drink in acute diseases attended

attended with a looseness, and where acrimonious humours abound in the *primæ viæ*. The gum is added in order to render the liquor highly glutinous, and thus enable it to sustain more of the calx. Some have proposed starch as an ingredient in these decoctions; a small quantity would be very useful.

Decoctum Album compositum.

Compound White Decoction.

Take of the greater comfrey roots and tormentil roots, each half an ounce, of spring-water three pints, adding at the end of the decoction one drachm of bruised cinnamon: to the strained liquor add of calcined hartshorn, chalk, and white sugar, each half an ounce.

This is a very well contrived composition for the purposes of a mild, lightly incrassating restringent. A quarter of a pint, more or less, may be taken occasionally, according to the urgency of the symptoms. The two first ingredients, though they seem intended as the principal ones, are the least useful.

Decoctum Japonicum.

Japonic Decoction.

Take of the Japonic confection one ounce, boil it in a pint and half of water to a pint: add to the turbid strained liquor, an ounce of cinnamon water with wine and as much diacodium. This decoction is used by way of draught, as well as clyster, as an anodyne and restringent in fluxes.

L. D. *Decoctum commune pro Clystere.*

The common Decoction for Clysters.

Take of mallow leaves, dried,

one ounce; camomile flowers dried, sweet fennel seeds, each half an ounce; water, one pint. Boil them together, and strain out the decoction for use.

Edinb.

Take of Camomile flowers, one ounce; carui seeds, half an ounce; water, four pints. Boil them a quarter of an hour, and then strain.

The title of these decoctions sufficiently expresses their use as the basis of clysters.

L. D. *Fotus Communis.*

The Common Fomentation.

Take of abrotanum leaves, dried, sea wormwood tops, dried, camomile flowers, dried, each one ounce; bay leaves, dried, half an ounce; water, six pints. Lightly boil them, and strain out the decoction for use.

It is left to the choice of the apothecary to take either the male or female *abrotanum*, that is southernwood or lavender cotton; which, though differing from one another in some respects, may be looked upon as similar with regard to the purposes for which this composition is intended: and possibly the fomentation would not be much the worse if neither of them was used. Spirit of wine, which is commonly added in fomentations, is left to be directed by the prescriber in such quantity as particular cases may require.

Decoctum ad Ictericos.

Decoction for the Jaundice.

Take ofcelandine roots and leaves, tumeric, madder, each one ounce; millepedes, two hundred; syrup of the five roots, two ounces; water, three pints.

Boil

Boil the celandine, turmeric, and madder in the water, till only a quart of liquor remains after straining; then, having pressed out the juice of two hundred of the millepedes, add this to the decoction.

The ingredients of which this decoction is composed, have been long held by many as specifics for the cure of the disease expressed in its title. This medicine, though extremely unpleasant, is well calculated to answer many useful purposes, if well managed and properly assisted. A quarter of a pint may be taken twice a day or oftener.

E. D. *Decoctum Lignorum.*

Decoction of the Woods.

Take of guaiacum shavings, three ounces; raisins of the sun, stoned, two ounces; sassafras wood, shaved, and liquorice, sliced and cut, one ounce; water, one gallon.

Boil the guaiacum and raisins with the water, over a gentle fire, to the consumption of one half; adding towards the end the sassafras and liquorice. Strain out the liquor, and having suffered it to rest for some time, pour off the clear from the fæces.

This decoction is very well contrived, and if its use is duly continued, will do great service in scorbutic and cutaneous diseases, foulness of the blood and juices, and some disorders of the breast; particularly in cold phlegmatic habits. It may be taken by itself, in the quantity of a quarter of a pint, two or three times a day, or used as an assistant in a course of mercurial or antimonial alteratives, the patient in either case keeping warm, in order to promote the operation of the medicine.

Decoctum ad Nephriticos.

Nephritic Decoction.

Take of marsh mallow roots and raisins of the sun stoned, each two ounces, boil them in six pints of water to four, adding at the end of the decoction, of liquorice root, and linseed each half an ounce; of pellitory of the wall one ounce, pour off the clear liquor after standing.

This decoction is intended chiefly as an emollient, to be liberally drank of in nephritic paroxysms: in which cases, by softening and relaxing the parts, it frequently relieves the pain, and procures an easy passage for the fabulous matter.

Decoctum Nitrosum.

Nitrous Decoction.

Take of pure nitre, half an ounce; white sugar, two ounces; cochineal, one scruple; water, two pints and a half. Boil to two pints, then suffer the whole to rest for some time, and pour off the clear decoction.

This is an elegant way of disguising nitre, and rendering it agreeable to the patient, both which intentions are fully answered by the cochineal and sugar. There is no occasion for boiling, unless to furnish the medicine with a name; for the water will dissolve a much larger quantity of the nitre and sugar than is directed above, without any heat; and it easily extracts a fine colour from cochineal.

L. D. *Decoctum Pectorale.*

Pectoral Decoction.

Take of common barley, stoned raisins, figs, each two ounces; liquorice, half an ounce; water, four pints.

First

First boil the water with the barley, then add the raisins, and lastly (just before the end of the process) the figs and liquorice; the boiling is to be continued so long, that the liquor, when strained, may be no more than two pints.

Take of stoned raisins, barley, each one ounce; fat figs, in number four; Florentine orris root, liquorice, colts-foot flowers, each half an ounce; water, six pints.

Boil the water with the raisins, barley, and figs, till only four pints remain: adding, towards the end, the other ingredients; then strain out the liquor for use.

Both these decoctions are useful soft pectorals; and very agreeable to the palate, particularly the first. They are good auxiliaries in sharp defluxions on the breast and lungs, and have sometimes done service by themselves. They may be drank at pleasure.

Decoctum Serpentariae compositum.
Compound Decoction of Snake-root.

Take of Virginian snake-root, six drachms; Edinburgh treacle, half an ounce; cochineal, one scruple; water, two pints.

Boil the root in the water, to the consumption of half the liquor; adding towards the end the treacle and cochineal.

This watery preparation is a medicine of considerable efficacy, possessing nearly all the virtues of the snake-root, and the opiate quality of the theriaca; the quantity here prescribed contains about three grains of opium. It is observable that snake-root yields its virtues to water almost as perfectly as to spirituous liquors; and

notwithstanding its subtilty of parts, does not loose much in evaporation with either, unless the process is performed by a more hasty fire than there is occasion for.

Decoctum Tamarindarum cum Sena.
Decoction of Tamarinds with Sena.

Take of tamarinds six drachms, of crystals of tartar two drachms, boil them in a pint and a half of water to a pint when strained; in which, while hot, infuse a drachm of sena leaves for four hours: then strain off the fluid, and add to it half an ounce of cinnamon water without wine, and an ounce of the syrup of violets. This is a very gentle useful eccoprotic.

L. D. *Aqua Hordeata.*
Barley water.

Take of pearl barley, two ounces; water, four pints.

First wash the barley from the mealy matter that adheres to it, with some cold water; then boil it a little with about half a pint of fresh water, which will acquire a considerable tinge from it. Throw away this tinged water; put the barley into the water prescribed, made first to boil; and continue the boiling till half the water is wasted.

This liquor is to be drank freely, as a diluter, in fevers and other disorders; hence it is of consequence that it should be prepared so as to be as elegant and agreeable as possible: for this reason it was inserted in the Pharmacopœia, and the several circumstances which contribute to its elegance set down. However trivial medicines of this class may appear to be, they are of greater importance in the cure of sundry acute diseases

diseases than many more laborious preparations. The present Edinburgh College calls this *Decoctum Hordei*.

L. D. *Jus Viperinum.*
Viper Broth.

Take a middle sized viper, freed from the head, skin, and intestines; and two pints of water. Boil them to a pint and a half; then remove the vessel from the fire; and when the liquor is grown cold, let the fat, which congeals upon the surface, if the viper was fresh, be taken off. Into this broth, whilst warm, put a pullet of a moderate size, drawn and freed from the skin, and all the fat, but with the flesh entire. Set the vessel on the fire again, that the liquor may boil; then remove it from the fire, take out the chicken, and immediately chop its flesh into little pieces: put these into the liquor again, set it over the fire, and as soon as it boils up, pour out the broth, first carefully taking off the scum.

This seems to be one of the best preparations of the viper: all the benefit that can be expected from that animal being by this means obtained. It is a very nutritious and restorative food: continued for a length of time, it has sometimes done good service in leprous and other obstinate cutaneous diseases.

L. D. *Mucilago Seminum Cylindrorum.*
Mucilage of Quince Seeds.

Take of quince seeds, one drachm: water, six ounces by measure. Boil them, over a soft fire, till the water grows slimy, almost like the white of an egg; then pass it through a linen cloth.

This is a pleasant soft mucilage,

of a somewhat sweetish taste, and a light agreeable smell: in these respects, and in its easy solubility in water, it differs from the mucilage of gum tragacanth, which some have supposed it similar to: it soon grows mouldy in keeping.

L. D. *Serum Aluminosum.*
Alum Whey.

Take of cow's milk, one pint; alum, in powder, two drachms. Boil them till the milk is curdled, and then carefully separate the whey.

This medicine is a strong, tho' not very grateful, astringent: immoderate uterine fluxes, and the diabetes, frequently yield to it, if taken in the quantity of a quarter of a pint three or four times a day. It has been recommended in intermittent fevers, the quantity above prescribed to be taken before the approach of a fit, divided into different doses.

L. D. *Serum Scorbuticum.*
Scorbutic Whey.

Take of cow's milk, one pint; scorbutic juices, a quarter of a pint. Boil them till the milk is curdled, and then carefully separate the whey.

This whey may be used as common drink in scorbutic cases: the quantity above directed, at least, ought to be taken every day, if any considerable effect is expected from it.

E. D. *Infusum Amarum.*
Bitter Infusion.

Take of gentian root, half an ounce; orange-peel, dried, one drachm; coriander seeds, half a drachm; proof spirit of wine, four ounces; water, twelve ounces.

First pour on the spirit, then the water;

water; let them stand without heat all night, and strain.

L. D. Infusum Amarum simplex.

Simple Bitter Infusion.

Take of gentian root, fresh yellow rind of lemon peel, carefully freed from the inner white part, each half an ounce; dry yellow rind of Seville orange peel, freed in like manner from the white, one drachm and a half; boiling water, three quarters of a pint. Macerate for an hour or two, then filter the liquor through paper, or pass it through a strainer without pressure.

Both these liquors are very elegant and useful bitters; the latter in particular is as agreeable as can well be contrived, the peels communicating a fine flavour, which is the only addition that the gentian stands in need of. The committee informs us, that most of the ingredients, which usually enter the composition of bitter infusions, being prepared by them separately, amongst all the strong bitters, gentian gave the most unexceptionable colour; but it wants the assistance of some ingredient to furnish an acceptable flavour; scarce any of the bitters accompanied with flavour, such as zedoary, *Calamus aromaticus*, and the like appeared to be truly grateful, except orange peel and cardamom seeds; but cardamom seeds are mucilaginous, and render the liquor cloudy, and orange peel is accompanied with a hot oil that requires it to be but sparingly used: lemon peel, in its outer rind, to which all its flavour is confined, is not a bitter, but supplies the gentian most successfully with what is wanted; though the composition, by a moderate addition of orange peel, becomes yet more perfect.

L. D. Infusum Amarum purgax.

Purging Bitter Infusion.

Take of senna, yellow rind of lemon peel, fresh, each three drachms; gentian root, yellow rind of Seville orange peel, dry, lesser cardamom seeds, freed from the husks, each half a drachm; boiling water, five ounces by measure. Macerate them together, and when cold strain off the liquor.

Infusum Amarum cum Senna

Bitter Infusion with Senna.

Take of senna, one drachm; gentian root, sweet fennel seeds, each half a drachm; boiling water, a quarter of a pint. Infuse them for four hours, and then filter the liquor.

This infusion may likewise be prepared with two, three, or more times the quantity of senna.

Both these are useful purging bitters. The quantities here prescribed seem intended for a dose; the first is the largest, and the other the smallest dose, that senna is usually given in.

E. D. Infusum Foliorum Flammulae Jovis.

Infusion of the leaves of the Upright Climber.

Take of the dried leaves of the Austrian upright climber (or virgin's bower) from two to four drachms; of boiling water, one pint. Macerate during a quarter of an hour, then gently boil them, and lastly pour off the clear liquor.

N. B. The *Flammula Jovis* is the *Clematis Recta* of Linnæus.

L. D. Infusum Sennæ commune.

Common Infusion of Senna

Take of senna, an ounce and a half; crystals of tartar, three drachms; lesser cardamom seeds, freed

freed from the husks, two drachms ; water, one pint.

Boil the crystals of tartar in the water, until they are dissolved ; then pour the water, whilst it continues boiling, upon the other ingredients, and when cold strain off the liquor for use.

In our former pharmacopœia, an alkaline salt was used in the infusion of senna, instead of the acid one here directed. The first contributed to promote the operation of the medicine, by superadding a degree of purgative virtue of its own, and by enabling the water to extract somewhat more from the capital ingredient, than it would be capable of doing by itself ; whilst acids have rather a contrary effect. Experience however has sufficiently shewn (as the committee assures us) that this infusion, and the following one with lemon juice, do not fail in their intention : and in a medicine, very nauseous to many, it is of principal consequence to prepare it so, that the lightest and least disgusting parts may be extracted. Soluble tartar should seem a good ingredient in these kinds of compositions ; as it not only improves the taste, but promotes the purgative virtue of this medicine ; this addition is said also to render the infusion less apt to gripe, or occasion flatulencies.

L. D. Infusum Sennæ Limoniatum.

Infusion of Senna with Lemon.

Take of senna, an ounce and a half ; yellow rind of lemon peel, fresh, one ounce ; lemon juice, one ounce, by measure ; boiling water, one pint. Macerate them together, and when cold, strain off the infusion.

This is a very pleasant and sufficiently efficacious purge : the committee informs us, that it is the most agreeable form they have been able to contrive for the exhibition of senna, to such as are more than ordinarily offended with its flavour. The dose is from two ounces to four.

Infusum Sennæ uncie quatuor.

The four Ounces Infusion of Senna.

Take of senna, three drachms ; ginger, twenty grains ; boiling water, four ounces ; infuse them four hours, and then strain off the fluid. The ginger abates the griping quality of the senna, and makes it sit better upon the stomach.

E. D. Infusion of Rhubarb.

Take of sliced rhubarb, one ounce ; spirituous cinnamon water, two ounces ; of boiling water, a pint : let them infuse all night, and then strain off the clear liquor. Rhubarb yields all its virtues to water as well as to spirit ; this is therefore a very efficacious and useful preparation.

E. D. Infusum Tamarindorum cum Sennâ.

Infusion of Tamarinds with Senna.

Take of tamarinds, six drachms ; cream of tartar and leaves of senna, of each one drachm ; coriander seeds, half a drachm ; brown sugar, half an ounce ; boiling water, half a pint. Macerate them in an unglazed vessel for four hours, then strain.

N. B. The senna may be added to two, three, or more times this quantity, as required.

Emulsiô Camphorata.

Take of camphor, half a drachm ; and six almonds ; beat them well together.

together in a stone mortar, adding by degrees half a pint of pennyroyal water; strain it, and add half an ounce of white sugar.

E. D. Emulſio communis.

The common Emulſion.

Take an ounce of ſweet almonds, and a drachin of bitter almonds; bruſe them in a marble mortar, and pour on by degrees two pints of water, and ſtrain it.

E. D. Emulſio Arabica.

The Arabic Emulſion.

It is made in the ſame manner as the preceding, except that half an ounce of gum arabic is to be boiled in the water, or two ounces and a half of the mucilage of gum arabic, may be added whiſt the almonds are bruſed.

Theſe emulſions, particularly the firſt, are very uſeful in preventing

the ſtrangury; in heats of urine, from whatever cauſe, they are cooling and obtunding.

L. D. Extracta et Refina.

Extracts and Refins.

Extracts are prepared from certain vegetable ſubſtances, by the means of water; which is firſt boiled on the ſubject till ſufficiently impregnated with its virtues, the decoction paſſed through a ſtrainer, and ſet by till the ſcæes have ſubſided: the liquor is then poured off clear, and evaporated to a pilular conſiſtence; care being taken towards the end of the operation, that the matter do not burn to the veſſel.

Refins may be prepared nearly in the ſame manner, by uſing rectified ſpirit of wine inſtead of water.

General Rules for making Extracts with Water.

1. It is indifferent whether herbs are uſed freſh or dry; ſince nothing that can be preſerved in this proceſs will be loſt by drying.

2. The more compact and refinous vegetable matters ſhould, if poſſible, be uſed freſh; as in this ſtate they moſt readily give out their virtues.

3. Very compact dry ſubſtances ſhould be reduced into exceeding ſmall parts, previous to the effuſion of the menſtrum.

4. The quantity of water ought to be no greater than is neceſſary for extracting the virtues of the ſubject. A difference herein will ſometimes occaſion a variation in the quality of the product: the larger the quantity of liquor, the

longer fire will be requiſite for evaporating it, and conſequently the more of the volatile parts of the ſubject will be diſſipated. A long continued heat likewiſe makes a conſiderable alteration in the matter which is not volatile: ſweet ſubſtances by long boiling with water become nauſeous; and the draſtic purgatives loſe their virulence; though without any remarkable ſeparation of their parts.

5. The decoctions are to be depurated by colature; and afterwards ſuffered to ſtand for a day or two, when a conſiderable quantity of ſediment is uſually found at the bottom. If the liquor poured off clear, be boiled down a little, and afterwards ſuffered to

cool again, it will deposit a fresh sediment, from which it may be decanted before you proceed to finish the evaporation. The decoctions of very resinous substances do not require this treatment, and are rather injured by it; the resin subsiding along with the feculent matter.

6. The evaporation is most conveniently performed in broad shallow vessels: the larger the surface of the liquor, the sooner will the aqueous parts exhale: this effect may likewise be promoted by agitation.

7. When the matter begins to grow thick, great care is necessary to prevent its burning. This accident, almost unavoidable if the quantity is large, and the fire applied as usual under the evaporating pan, may be effectually secured against, by carrying on the inspissation after the common manner, no farther than to the consistence of a syrup, when the matter is to be poured into shallow tin or earthen pans, and placed in an oven, with its door open, moderately heated; which acting uniformly on every part of the liquid, will soon reduce it into any degree of consistence required. This may likewise be done in *balneo Mariæ*, by setting the evaporating vessel in boiling water; but the evaporation is here exceeding slow and tedious.

8. Extracts are to be sprinkled with a little spirit of wine, to prevent their growing mouldy (L.) They should be kept in bladders, moistened with sweet oil (E.)

Extractum Plantaginis.

Extract of Plantane.

Take any quantity of plantain juice, depurate it by suffering it to rest till it is clear; or clarify it with the whites of eggs, then eva-

porate the juice in B. M. to the consistence of honey. After the same manner may extracts be made from any acid, cold, succulent, and styptic plants,

This is supposed to be a mild astringent, and is given from one to two drachms in diarrhœas; but the present practice esteems it very little.

L. Extractum Radicum Enulæ Campanæ.

Extract of the Roots of Elecampane.

This extract retains a great share of the virtues of the root; its taste is somewhat warm, and not ungratefully bitterish. It is given, from a scruple to a drachm, in a lax state of the fibres of the stomach, and some disorders of the breast.

L. E. Extractum Radicum Gentianæ.
Extract of the Roots of Gentian.

E. Extractum Gentianæ.
Extract of Gentian.

Take gentian root, slice and bruise it well, and add four times its weight of water; boil to the consumption of one half, then press out the juice as forcibly as you can, and afterwards strain it; lastly evaporate gently to the consistence of honey.

In the same manner are prepared the extracts of black helebore, rue, white poppy seeds, and the seeds of hemlock.

E. Extractum Aconiti.
Extract of Aconite.

Bruise the fresh leaves of monkshood (or the large blue aconite), and through a coarse cloth press out the juice, which evaporate in a water-bath to the consistence of honey; and lastly, carefully stir
it

it until it hath acquired a due consistence.

Thus are prepared the extracts of deadly nightshade, of virgin bower, of henbane, and of the thorn-apple leaves.

Extractum Foliorum Absinthii.
Extract of the Leaves of Worm-wood.

E. *Extractum Belladonnæ.*
Extract of Deadly Nightshade.

Extractum Foliorum Centaurii Minoris.
Extract of the Leaves of Lesser Centaury.

Extractum Florum Chamæmeli.
Extract of Camomile Flowers.

These extracts are almost simply bitter; the peculiar flavour of such of the subjects as have any, being dissipated in the evaporation: the chemists usually prepare the extracts of wormwood and camomile flowers, from the decoction which remains in the still after the distillation of their essential oils; and, provided the still has been perfectly clean, and the liquors not stood too long in it after the distillation, this piece of frugality is not to be disapproved of; since whether we catch the exhaling vapour, or suffer it to dissipate in the air, the remaining extract will be the same.

For the virtues of these preparations, see the articles Bitters. The dose is from one scruple, or less, to three or four.

E. *Extractum Flammulae Jovis.*
Extract of Upright Virgin's Bower.

L. E. *Extractum Radicum Hellebori Nigri.*
Extract of the Roots of Black Hellebore.

This extract purges with considerable less violence than the crude

root, and is perhaps one of the best preparations of hellebore, when intended to act only as a cathartic. The dose is from eight or ten grains to a scruple, or more:

E. *Extractum Hyoscyami.*
Extract of Henbane.

L. *Extractum Foliorum Rutæ.*
Extract of Rue Leaves.

L. *Extractum Foliorum Sabinæ.*
Extract of the Leaves of Savin.

The virtues of these plants reside chiefly in their volatile parts; nevertheless the extracts contain a greater share of them than might be expected, provided they are prepared with suitable address, according to the general directions.

E. *Extractum Foliorum Stramoni.*
Extract of Thorn Apple Leaves.

L. D. *Extractum Glycyrrhizæ.*
Extract of Liquorice.

Lightly boil fresh liquorice roots in water, press the decoction thro' a strainer, and after the fæces have subsided, evaporate it until it no longer sticks to the fingers, taking care, towards the end of the operation, to prevent an empyreuma.

It is convenient, before boiling the root, to cut it transversely into small pieces, that it may more readily give out its virtue to light decoction: if the boiling is long continued, the rich sweet taste, for which this preparation is valued, will be greatly injured.

L. *Extractum Jalapii.*
Extract of Jalap.

Upon powdered jalap pour some rectified spirit of wine, and with a gentle heat extract a tincture: boil the remaining jalap in fresh parcels

of water. Strain the first tincture, and draw off the spirit, till what remains begins to grow thick: boil the strained decoction also to a like thickness; then mix both the inspissated matters together, and, with a gentle fire, reduce the whole to a pilular consistence.

This extract is an useful purgative, preferable to the crude root, as being of more uniform strength, and as the dose, by the rejection of the woody parts, is rendered smaller: the mean dose is twelve grains. If the spirituous tincture was inspissated by itself, it would afford a resinous mass, which occasions violent griping, and yet does not prove sufficiently cathartic; the watery decoctions yield an extract which operates exceeding weakly: both joined together, as in this preparation, compose an effectual and safe purge.

E. Take the roots of jalap one pound, rectified spirit of wine four pounds, water two pounds. Digest in a close vessel for eight days, and strain. In a retort distil the strained liquor to one half, the rest may be evaporated to the consistence of honey in an open vessel placed in the vapour from boiling water; at the latter end of the evaporation stir it frequently, that the consistence may be uniform.

L. D. *Extractum Ligni Campechensis.*

Extract of Logwood.

Take of logwood reduced to powder, one pound; boil it in a gallon of water till half the liquor is consumed, repeating the coction with fresh water four times, or oftener: the several decoctions are to be mixed together, passed thro' a strainer, and evaporated to a due consistence.

This wood very difficultly yields its virtue to watery menstrua; and hence the reducing it into fine powder is extremely necessary. It has an agreeable sweet taste, with some degree of astringency; and hence becomes serviceable in diarrhœas, for blunting the acrimony of the juices, and moderately constringing the intestines and orifices of the smaller vessels: it may be given from a scruple to half a drachm, and repeated five or six times a day to advantage.

E. D. *Extractum Ligni Campechensis.*

Extract of Logwood.

It is prepared in the same manner as the extract of jalap, adding instead of the rectified spirit of wine, and the water, the proper quantity of proof spirit.

In the same manner also is prepared the *Extractum Corticis Peruviani*.

L. D. *Extractum Corticis Peruviani, molle & durum.*

Soft and hard Extract of the Peruvian Bark.

Take of the Peruvian bark powdered, one pound; of water, ten or twelve pints; boil them one or two hours, and pour off the fluid, which will be then red and clear, but as it cools will grow yellow and turbid; the same quantity of water being again put to the bark, let them be boiled as before; and let this be repeated, till the liquor poured off appears limpid when cold; then the several quantities of fluid being mixed together, let them be evaporated over a very slow fire to a due consistence, carefully avoiding their acquiring any burnt scent.

This extract is to be prepared in a double form: the one soft, of

a consistence proper for pills; the other sufficiently hard, to suffer it being powdered.

This method of making the extract of bark is more expeditious, and less expensive, than that with spirit of wine commonly practised; but it is disputed which of the two affords the most efficacious medicine: Dr. Pemberton, in his translation of their Dispensatory, asserts that it is the opinion of the college of London, that this extract contains all the medicinal parts of the bark, and is on other accounts preferable to that made with spirit of wine; and, on the other hand, Dr. Lewis, in his notes on the Edinburgh Dispensatory, gives the following account from experiments, which he says were purposely made.

A pound of the same bark, treated, with two quarts of spirit of wine, and a gallon of water, after the manner described in the preceding note upon the extract of jalap, yielded nearly the same quantity of extract as in the last experiment.

Upon comparing these two preparations together, that made with water alone was found much milder and far less styptic than that prepared by spirit of wine and water; the latter much more perfectly resembling the original bark. Upon boiling the first extract in water, and afterwards in spirit of wine, a considerable quantity remained undissolved in either of the menstrua: the latter, treated in the same manner, scarce left any perceptible faeces. From these experiments it appears, that the extract prepared with water alone contains some of the woody parts of the bark; that its taste is considerably injured, probably from the long

decoction which that process requires; that the taste, and probably the medicinal virtues of the bark, are better extracted and preserved, when both spirit and water are employed; that the process is greatly expedited by this means, and that the dose of the medicine, a point principally aimed at in these preparations, is less.

That there is a difference in the extracts made with or without spirit of wine, is extremely evident, on comparing them together; but whether it is such as renders one less capable of answering its medicinal intention than the other, is not clear from the present experience; and it is therefore better, for the sake of uniformity, to acquiesce in the prescription of the college. The extract possesses the qualities of the bark in species, of which see Catalogue of Simples, but not perhaps in all cases with the same degree of power. The dose may be from one scruple to a drachm, according to the exigence.

L. D. *Extractum Ligni Guaiaci, molle & durum.*

Extract of Guaiacum Wood, soft and hard.

Boil a pound of shavings of guaiacum in a gallon of water, till half the liquor is wasted, repeating the operation four times, or oftener, with the same quantities of fresh water. The several decoctions, passed through a strainer, are to be mixed and inspissated together; when the aqueous parts are almost entirely exhaled, a little rectified spirit of wine is to be added, that the whole may be reduced into an uniform and tenacious mass. This extract is to be prepared, as the foregoing, in a soft and hard form.

Here

Here the resinous parts of the wood which were boiled out with the water, are apt to separate towards the end of the inspissation: hence an addition of spirit becomes necessary to keep them united with the rest of the matter.

L. D. Extractum Catharticum.

Cathartic Extract.

Take of Succotorine aloes, an ounce and a half; colocynth, six drachms; scammony, half an ounce; lesser cardamoms, husked, half an ounce; proof spirit, one pint.

Having cut the colocynth small, and bruised the seeds, pour on them the vinous spirit, and digest with a gentle heat for four days; press out the tincture, and dissolve therein the aloes and scammony, first separately reduced to powder: then draw off the spirit, and inspissate the remaining mass to a pilular consistence.

The title of this medicine expresses its virtue. It is a very powerful cathartic, and relied on in cases where the life of the patient depends on its taking effect: the dose is from fifteen grains to two scruples. It does not retain so much of the flavour of the cardamom seeds as might be expected.

E. D. Extractum Cicutæ.

Extract of Hemlock.

Take fresh hemlock leaves, gathered just before the plant begins to flower, which it commonly does in July, or about the latter end of June; press out the juice, and immediately, without suffering it to settle; put it into a shallow glazed earthen pan, over a very gentle fire; keeping it continually stirring, to prevent its burning, till it is reduced to a thick greenish

brown mass. This mass may be formed into pills with a little of the powder of the dried leaves of the plant.

This is the preparation of hemlock lately published at Vienna by Dr. Storck, who recommends it as a resolvent, where all other medicines have failed. Two grains may be made into a pill; to be taken at the first twice a day, and gradually increase the dose until the patient can take three or four drachms a day; which quantity may be continued for several weeks. It is equally safe in infancy, age, or pregnancy; it neither accelerates nor disturbs the circulation; neither heats nor cools; nor affects the animal functions; it increases the secretions, and renders the mouth moist; seldom purges, and very rarely vomits; sometimes augments perspiration; often produces a copious discharge of viscid urine; but more often produces no sensible evacuation; it removes obstructions and their consequences; dissolves schirrous tumours, both internal and external; it often dissolves cataracts, or stops their progress, and has sometimes removed the gutta serena: it has been used with great advantage in inveterate cutaneous eruptions, scald heads, malignant ulcers, cancers, the worst species of fluor albus, and caries of the bones often yield to it. For the most part it is necessary to continue its use for a considerable time before any sensible benefit is to be perceived. In some cases it has failed of giving relief; and some persons cannot bear its effects; yet the great number of deplorable cases in which it has relieved, is sufficient to recommend it as one of the most valuable medicines.

It is anodyne and narcotic ; it promotes rest, and eases pain ; and seldom creates thirst or heat, which are common effects of opium ; it promotes the menses, particularly when suddenly restrained by cold, surprises, &c.

As in different seasons this plant will greatly vary in its degrees of strength, consequently the extract will be subject to the same inconvenience ; to obviate which, begin the use of it with a small dose, and gradually increase it till the effects that manifest a full dose is produced : these effects are different in different constitutions ; but for the most part a giddiness affecting the head and motion of the eyes, as if something pushed them outwards, are first felt, a slight sickness and trembling, and a laxative stool or two following : some or all of these are marks of a full dose, let the quantity be what it will.

It is generally observed, that this medicine, though continued a long time, is of no effect but when the doses are as large as the patient can well bear.

Dr. Cullen proposes, for the sake of having this extract equally active, that it be prepared from the unripe seeds.

The present dispensatory of the Edinburgh college directs the stalks to be pressed with the leaves ; and the evaporation to be so far carried on, that one fifth part of the powdered leaves may give the proper consistence for pills.

E. D. Pilulae, seu Extractum, Rudii.

The Pills or Extract of Ruidius.

Take of black hellebore roots, colocynth, Succotorine aloes, each

two ounces ; scammony, one ounce ; vitriolated tartar, two drachms ; distilled oil of cloves, one drachm. Bruise the colocynth and hellebore, pour on them two quarts of water, and boil to the consumption of half the liquor : pass the decoction thro' a strainer, and evaporate it to the consistence of honey ; then add the aloes and scammony, reduced into fine powder : when the mass is taken from the fire, mix into it the vitriolated tartar, and distilled oil.

L. D. Gumma et Resina Aloes.

Gum and Resin of Aloes.

Boil four ounces of Succotorine aloes in two pints of water, till as much as possible of the aloes is dissolved. The solution, suffered to rest for a night, will depomite the resin to the bottom of the vessel : after which, the remaining liquor, strained, if needful, is to be evaporated, that the gum may be left.

The gum of aloes is somewhat less purgative, and considerably less disagreeable than the crude juice. This alteration is not owing, as might be supposed, to the separation of the resin ; for the pure resin of aloes is still less disagreeable, and less purgative, even than the gum.

The resin of guaiacum may be more commodiously made from gum guaiacum than from the wood.

Gum guaiacum, as it is called, is very impure, and contains, besides its resin, a large quantity of mucilaginous and earthy matter : this method of purifying it therefore is very necessary.

S E C T. III.

Of Syrups, Honeys, and Juices.

TH E Galenical Pharmacy next furnishes us with medicines preserved in sugar or honey, under the titles of syrups, honeys, oxymels, juices, candies, confections, and conserves; all which forms differ in little else than the management, whereby their respective materials are joined with sugar or honey; and all of these seem contrived either to preserve certain things as near as possible to the condition in which nature affords them, or else to render them more palatable in taking.

In order to judge what dependence may be had upon these things in any intention which may occur in extemporaneous practice, we must examine the finels of the parts of the *Materia Medica* to be so mixed; to which purpose we are to consider what it is which the sugar or honey does.

In this view the materials thus ordered may be considered either in their whole substance with which the sugar is immediately mixed, as in the conserves; or else in their juices and decoctions, which are afterwards boiled up with sugar or honey into syrup. And in such a review of them, we are to have a great regard to that particular quality in the simples, in which their medicinal virtues consist, as it is, or is not capable of preservation by this means; and to its quantity or efficacy or power of operation; to see whether after this manner we can have enough of it in a conve-

nient dose, to depend upon as a medicine in cases of moment.

Of things which are immediately mixed in substance with sugar, those only seem fitted for it whose predominant qualities are thus to be preserved, and thus to be given as a medicine, from which somewhat may be expected to be done. Thus the flowers of lavender, Rosemary, the outer peels of oranges and lemons, and a few more of those ordered in conserves, are preservable with sugar in such a manner, that small quantities of them will answer in such intentions as they are suited to answer in any other form. But mint, scurvy-grass, rue, and such things as require to be taken in large quantities before we can lay any stress upon them, are very unfit for this treatment; because a dose sufficient to be trusted to is enough to nauseate the stomach, and do mischief otherwise, by the sugar they necessarily carry along with them. All bitters are likewise unfit for this management, as wormwood, fumitory, and the like, because they are too nauseous to be endured; and those of a glutinous and viscid texture, as the comfrey, &c. by lying in sugar lose that very quality which ought to be expected, and soon become good for nothing. The same rules for judging hold likewise in all other forms where sugar comes in: so that on examination we shall find few of the alterants improveable by this means: though as to emetics, and

cathartics,

carthartics, where a sufficient efficacy for a dose lies in a little room they are conveniently enough thus preserved. And indeed if we consider a conserve or a syrup as a means to join other things of efficacy together, and to give to other forms consistence, and a convenience of taking, they may most of them have their use; but little else can be said in their favour.

In making the officinal syrups to the best advantage, some principal qualities in the things themselves, before such a process is entered upon, ought particularly to be regarded. The most simple treatment in this form, is the dissolving sugar enough in the juice, or infusion of some things, to give it a consistence for keeping; the proportion required for this purpose is generally double the quantity of sugar to that of the liquor; and where it is ordered with less sugar, boiling is required to bring it to a due consistence.

Amongst the materials thus ordered, all acids ought to have their due quantities of sugar to bring them to a consistence without boiling; because the very action of much heat upon them destroys their acidity, and makes them liable to candy; and this more particularly holds good where a juice hath any fragrantcy in flavour, as that of oranges, lemons, citrons, and the like; because boiling also exhales and destroys that fragrantcy. Such infusions likewise as give to a syrup a desirable colour, ought at once to be so charged with sugar as not to require boiling, because their colour by such procedure would be spoiled; as with the violets, red poppies, cloves, and the like; none of which can bear the fire, but to their detriment.

The alterant syrups, either simple or compound, which are made from decoctions, and take not in sugar enough to give them a due consistence without boiling, do most require clarification, which is commonly done with the whites of eggs; but this addition to their sightliness, is an injury to their virtues, where any thing mucilaginous or viscid is required, for the reasons before given concerning decoctions: but amongst this whole tribe, this caution is no where so necessary as in the *Syrupus de Meconio*. What is taken from the poppy, and which solely gives the virtue to this syrup, will make a decoction thick; and if that be taken out by clarification, the medicine becomes of little or no effect; so that a certain way to know when this may be trusted to, is by its making a draught thick and foul, and depositing a light sediment upon standing.

There are so many under this title of syrups yet retained in the Dispensatories, which are hardly ever made or prescribed, that the particular examination of them would be a needless trouble; and therefore it may be sufficient to observe that these are the *Syrupus de Absinthio simplex*, justly neglected for its nauseousness; the compound syrup under the same title; the *Syrupus de Artemisiâ*, de *Erysimo*, *Myrtinus*, de *Pomis alterans*, de *Pæonia compesitus*, de *Præssio*, de *Stæchade de Symphyto*; and amongst the *Syrupi purgantes*, the *Syrupus de Cichoreo cum Rhabarbaro*, de *Pomis purgans*, and *Rosaceus solutivus cum Senâ*.

Of those which are frequently in use, the *Syrupus de Althæâ* is the most considerable compound; but if we examine the efficacies or fitness

ness of the several ingredients for this form, we shall soon enter into the reason why it is most frequently ordered in its decoction, to be used like a common apozem, in large draughts at a time; which way it is certainly a good emollient, and serviceable in nephritic disorders, by lubricating the passages; but if a quart or two of this may safely be drank in a day, very little can be expected from what syrup can be got down in the same time.

The same holds good in the *Syrupus Capillorum Veneris, de Glycyrrhizâ*, and *è quinque Radicibus*, for their decoctions may be drank in large quantities with safety, and require to be so taken when any thing is expected from them; so that all these things are of use in syrups only to sweeten decoctions, or juleps of like intention; or else to make up-boles or electaries into a due consistence.

The *Syrupus de Mentâ* is a composition of some efficacy, being a grateful astringent. But even this ought to be trusted to only as a weak auxiliary. The same is observable of the *Syrupus de Rosâ siccis*.

The *Syrupus de Cinnamomi* may answer in the intention of a restringent; but for its spicy and cordial quality, that must necessarily be lost in so long boiling as is required to give it consistence, with half a pound of sugar to one pint of water. The other spices and seeds directed to be made into syrups after the same manner, are liable to the same inconveniencies: as are also the syrups from the citron, orange, and lemon peels. But all the flavour from these ingredients which can be retained in a syrup, as this form is commonly

kept in the shops in open pots, or those loosely covered, is soon lost by standing; so that such things are to great disadvantage ordered this way. The *Syrupus Balsamicus* is liable to the same loss, but is directed with the utmost care possible, to preserve its more fragrant and volatile parts. This last mentioned syrup is frequently, for cheapness, made with storax or benjamin, or both; the difference being hardly discoverable, and the fraud of no very ill consequence.

The first way directed to make the *Syrupus Chalybeatus* is hardly practicable, because the *Sal Martis* does not seem dissolvable in the compound gentian water; and as the *Syrupus de Pomis alterans* is scarce ever made; this way, I believe, hath never been tried. That with only steel, wine, and sugar, is the old and common way of making it, but it is very apt to run into candy; as is likewise the *Syrupus Croci*, and any other of this form made with a vinous liquor, because the sugar is not so naturally suspended in them, as in water and the thicker fluids; and therefore they are more ready to shoot into crystals.

Amongst the purging syrups, the first, from succory with rhu-barb, hath been heretofore much in esteem; but the whole croud of ingredients in it, which have been thought either correctors or purgers of bile, are now known to be of so little efficacy as to any such purposes, that they are grown into neglect; and that shorter composition, which bears the title of *Syrupus de Rhabarbaro*, is now much more valued; though the violet flowers, the succory and fennel waters, seem but very insignificant circumstances in making it.

The *Syrupus à Floribus Malorum Persicorum*, which orders the infusion to be five times repeated with fresh flowers, is commonly made with one infusion only, with just water enough to cover and scald the flowers; and that proves a good gentle emetic or purge to young children: the other way would certainly render it stronger; but so very few care for the trouble, that I never yet met with any who would vouch for its being thus made. The *Syrupus Rosaceus solutivus* is directed somewhat in the same manner; but a stronger infusion of the dried damask roses, or the residuum after distillation, will make it with less trouble, and full as good, if not better, than is here ordered by frequent infusions, or from the expressed juice.

The syrup of buckthorn is of strength sufficient to require not above two ounces for its largest dose, which may conveniently enough be given; but the customary way of putting in the spices hath been in a thin bag during its boiling to a consistence, and the less time they are exposed to such treatment the better.

Amongst the medicated honeys, or syrups made with honey instead of sugar, there are none in use, unless the *Mel Mercuriale*, *Rosatum*, and *Oxymel Scilliticum*; though it is certain, that with things intended to expectorate and deterge, honey is more proper than sugar. The *Mel Helleboratum* hath sometimes been used in hypochondrical and maniacal affections, but its operation is so uncertain, that few care to trust it; for sometimes it acts as a violent emetic, and at others more by stool; and it is an evident sign that this hath not been much used

in practice, by the neglect of its prescription in the common Dispensatories; where, with the same quantity of hellebore, they have sometimes ordered thirteen pounds of honey, and sometimes but three pounds. The *Mel Mercuriale* is chiefly used in clysters; the *Mel Rosatum* in gargles, and for a sore mouth; and the *Oxymel Scilliticum* as an emetic, unless when restrained by cordial astringents, as the cinnamon in mixture, which helps it to pass farther, and promote expectoration, or to go off by urine. The *Oxymel compositum* is uniform in the intention of its ingredients, and serves for a good aperient, or detergent; but it is seldom made or prescribed.

One caution in common practice is worth every one's regard; and that is, never to prescribe any thing with honey in it, before enquiring of the patient whether he has any natural aversion to it, because many constitutions have, in so much that a dose of any of the officinal capitals, made the common way with honey, will occasion very great and strong disorders.

Under the next division of *Rob five Sapæ & Succ*, we have nothing either in officinal or extemporaneous prescription, unless the *Acacia*, which is the juice of flocs boiled to a consistence, and the *Succus Glycyrrhizæ*; the latter of which is by many preferred to the *Succus Glycyrrhizæ Hispanicæ*, because the foreign is very often foul and drossy, whereas that of our own mixing is much cleaner, and more efficacious; besides its greater readiness, from its softer consistence, to mix into any extemporaneous forms, as boles and the like.

The old officinal form, called *Loboc* or *Elegma*, used to supply us with abundance of things from the ancient and foreign Dispensatories: It is of a consistence between a syrup and an electary or conserve, and generally takes in so many things of a mucilaginous and slimy texture, mixed with sugar, that soon makes them ferment and sour; for which reason those few now retained, which are but two in the last Dispensatory, are hardly ever made or prescribed, and therefore are not worth examination, as to the uniformity of their ingredients in any intention.

Nothing ought to be brought into this form, but what is conveniently drawn out by decoction in an aqueous menstruum, as are the expressed juices of plants, fruits, &c. for any thing of a volatile, or spirituous nature, will not be continued herein long; if it does not get away even in the making. The more, likewise, any substances are disposed to fermentation, the less they are fit for this form; because they will run into new coalescencies, and destroy the due consistence of the medicine, by some parts being too thick and ropy, and others too thin: the juices therefore of fruits, for this reason, soonest decay in syrups. Whatsoever medicinal ingredients then have their virtues consisting in their most solid and permanent parts, and such as are of a saline and earthy nature, are conveniently enough reduced into, and preserved in this form; because such will draw out in an aqueous body, and bear boiling up to that consistency with sugar, which is necessary for keeping without evaporating.

For this purpose, therefore, all

decoctions from dry herbs are much fitter for this form than the juices expressed from those herbs, which they are often ordered to be made with, because the most forcible pressure of a green plant must still leave some portion behind, and that most probably which is the best, as the thin watery parts run off first; whereas the more saline and substantial are so intimately mixed as almost to make a part of the fibres, and therefore will remain in the pressings; but when a plant is dried, which robs it only of the phlegm, or superfluous moisture, boiling water naturally opens its minutest cells, and joins with the essential salts, and most material parts of all. And this farther advantage a syrup has, made from the decoction of a dry plant, above that which is made from an expressed juice; that it will be both finer, and keep longer, as well as be stronger of the ingredient.

But because a syrup can retain nothing but the grosser and more rigid parts of the ingredients, which are concerned in its composition, this form is confined to very few intentions, which are to be answered only by the medicine's operation in the stomach or bowels; and therefore under this division we are to look for little else besides emetics and cathartics, unless for the conveniency of other forms, and to make dry substances up into pills, boles, or electaries, or to sweeten juleps; and render some things palatable for taking. Wherefore, therefore, we meet with a syrup, from any celebrated author, or how pompously soever dignified with a title; yet if its operation is pretended to lie beyond the *primæ viæ*, it ought to be rejected. How
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can it be imagined that the intention of a cephalic, as it has already been fully explained, can be answered by a medicine that is inconsistent with any thing volatile in its composition? The same holds good against any thing herein being likewise diaphoretic, and almost diuretic also: though a syrup may be so loaded with fixed salts, as to carry some of them into the blood; but then such as are much better managed in other forms. A cephalic, an antiscorbutic, an alexipharmic, and even a diuretic syrup, are terms ridiculous; if not contradictory. And as for the number of those, which are much the greatest, that are made only for the conveniency of extemporaneous forms, there are hardly any of them better than so much plain syrup of sugar, or common molasses; and therefore the present practice has, very justly, almost rejected them; for a julep is now rarely ordered to be sweetened with any thing but plain sugar.

General Rules to be observed in making Syrups.

I. The sugar used for syrups made without boiling, should be previously boiled with water, to a candy consistence; being at the same time clarified by whites of eggs, and proper scumming.

II. The quantity of sugar used for these syrups, should be twice the weight of the fluid, (though a less proportion will generally suffice.) Dissolve half the sugar in the fluid; afterwards, by degrees, add more of it in powder than will dissolve readily, but will remain at the bottom of the vessel; then with the gentle heat of a balneum perfect the solution.

III. Acid syrups, and those made with juices of fruits, must not be put into copper vessels, unless tinned.

IV. The rules given for decoctions, in general, extend also to decoctions for syrups. The vegetables used either for decoctions or infusions are to be moderately dried, except where they are expressly prescribed fresh.

L. D. *Syrupus ex Allio.*

Syrup of Garlick.

Take of garlick, sliced, one pound; boiling-water, two pints: macerate them in a close vessel for twelve hours; then strain off the liquor, and dissolve in it a proper quantity of sugar, so as to make a syrup.

This syrup is occasionally made use of for attenuating viscid phlegm, and promoting expectoration in humoural asthmas, and oppressions of the breast: in these cases it proves a medicine of considerable efficacy, though a very unpleasant one: it tastes and smells strong of the garlick.

L. *Syrupus ex Althæa.*

Syrup of Marshmallows.

Take of marshmallow roots, fresh, one pound; double refined sugar, four pounds; water, one gallon.

Boil the water with the roots to one half: when grown thoroughly cold, pour off and press out the decoction, and set it by for a night to settle: next morning, pour off the clear liquor, and adding to it the sugar, boil the whole to the weight of six pounds.

E. D. Take of marshmallow roots, a little dried, nine ounces; water,

water, one gallon; double refined sugar, four pounds: Boil the water with the roots to the consumption of one half, and strain out the liquor by close pressure. Set the strained liquor aside to deposit its faces, and to the clear liquor add the sugar, and boil it to the consistence of a syrup.

This syrup is used chiefly in nephritic eases, for sweetening emollient decoctions, and the like; of itself, it can do little service, notwithstanding the high opinion which some have entertained of it; for what can be expected from two or three spoonfuls of the syrup, when the decoction, from which five or six pounds are made, may be taken at a draught or two?

L. Syrupus e Corticibus Aurantiorum.
Syrup of Orange-Peel.

Take of the yellow rind of Seville orange-peel, fresh, eight ounces; boiling-water, five pints: macerate them for a night in a close vessel; next morning, strain out the liquor, and dissolve in it the proper quantity of sugar for making it into a syrup.

E. Take of the yellow rind of orange peel, fresh, six ounces; boiling-water, three pints. Macerate them for a night in a close vessel, then strain the liquor; let it stand to settle: and having poured it clear off from the sediment, dissolve therein seven pounds and a quarter of white sugar, so as to make it into a syrup with a gentle heat.

In making this syrup, it is particularly necessary, that the sugar be previously powdered, and dissolved in the infusion with as gentle a heat as possible, to pre-

vent the exhalation of the volatile parts of the peel. With these cautions, the syrup proves a very elegant and agreeable one, possessing great share of the fine flavour of the orange-peel.

L. Syrupus Balsamicus.
Balsamic Syrup.

Take of Balsam of Tolu, eight ounces; water, three pints.

Boil them for two or three hours in a circulatory vessel, or at least in a long-necked matrafs, having its mouth lightly covered. When grown cold, strain out the liquor, and mix therewith a proper quantity of sugar, to make it into a syrup.

E. Take of the syrup of sugar, just made, and warm from the fire, two pounds; tincture of balsam of Tolu, one ounce.

When the syrup has grown almost cold, stir into it the tincture, by little at a time, agitating them well together, till perfectly united.

The intention of the contrivers of the two foregoing processes seems to have been somewhat different. In the first, the more subtle and fragrant parts of the balsam are extracted from the grosser resinous matter, and alone retained in the syrup: the other syrup contains the whole substance of the balsam, in larger quantity. They are both moderately impregnated with the agreeable flavour of the balsam.

It hath been objected that the spirit in the tincture, spoils the taste of this syrup, and therefore after the mixture of the tincture with the syrup, it was directed to place the mixture on the heat of a sand-bath, until the spirit is exhaled.

In some Pharmacopœias, an elegant syrup of this kind is prepared from a tincture of balsam of Peru; with rose-water, and a proper quantity of sugar.

L. Syrupus Caryophyllorum Rubrorum.

Syrup of Clove July-Flowers.

Take of clove July-flowers, fresh gathered, and freed from the heels, three pounds; boiling-water, five pints.

Macerate them for a night in a glass, or glazed earthen vessel, then strain off the liquor, and dissolve therein its due proportion of sugar to make it a syrup.

E. D. Take of clove July-flowers, fresh gathered, and freed from the heels, one pound; boiling water, three pints; fine white sugar, seven pounds and a quarter. Macerate the flowers in the water for a night, then to the strained liquor, add the sugar powdered, and with a gentle heat make it into a syrup.

This syrup is of an agreeable flavour, and a fine red colour; and for these it is chiefly valued.

E. D. Syrupus Colchici.

Syrup of Meadow-Saffron.

Take of the fresh succulent roots of meadow-saffron, cut in thin slices, one ounce; vinegar, a pint, and pure sugar twenty-six ounces. Digest the roots in the vinegar for two days, now and then shaking the vessel, then strain off the liquor by a gentle pressure. To the clear liquor add the sugar powdered, and boil them gently, so as to make a syrup.

L. D. Syrupus Croci.

Syrup of Saffron.

Take of saffron wine, one pint; double refined sugar, twenty-five

ounces. Dissolve the sugar in the wine, so as to make a syrup thereof.

Saffron is very well fitted for making a syrup, as in this form a sufficient dose of it is contained in a reasonable compass. This syrup is at present more frequently prescribed, than the wine from which it is made: it is a pleasant cordial, and gives a fine colour to juleps.

L. D. Syrupus Cydoniorum

Syrup of Quinces

Take of quince-juice, depurated, three pints; cinnamon, one drachm; cloves, ginger, each half a drachm; red Port wine, one pint; double refined sugar, nine pounds.

Digest the juice with the spices, in the heat of ashes, for six hours; then adding the wine, pass the liquor through a strainer; and afterwards dissolve it in the sugar, so as to make a syrup.

This preparation is a very agreeable, mild, cordial restraining; and in some kinds of looseness and disorders of the stomach, may be either taken by itself, in the quantity of a spoonful or two at a time, or employed for reconciling to the palate medicines more ungrateful.

Syrupus Kermesinus.

Syrup of Kermes.

Take of juice of kermes grains, one pound; white sugar, two pounds. Make them into a syrup, without heat.

The syrup of kermes is brought to us ready made, from the southern parts of France.

This syrup is of an agreeable taste, and a fine red colour. It is accounted cordial and corroborant, and supposed to be particularly serviceable

serviceable in weakness, and other disorders of pregnant women.

L. D. *Syrupus e Succo Limonum*
Syrup of Lemon Juice.

Take of the juice of lemons, suffered to settle till the faeces have subsided, and afterwards strained, two pints; doubled refined sugar, fifty ounces. Dissolve the sugar in the juice, so as to make a syrup thereof.

E. Take of lemon juice, depurated, two pounds; white sugar, four pounds and two ounces. Make them into a syrup without boiling.

After the same manner are prepared,

L. *Syrupus e Succo Mororum*.
Syrup of Mulberries.

L. *Syrupus e Succo Fructus Rubi Idæi*.

Syrup of Raspberries.

All these are very pleasant, cooling syrups, and in this intention are occasionally made use of, in draughts and juleps, for quenching thirst, abating heat, &c. in bilious or inflammatory distempers. They are sometimes likewise employed in gargarisms.

L. D. *Syrupus e Meconio, sive Diacodion*.

Syrup of Meconium, or Diacodion.

Take of white poppy heads, dried and cleared from the seeds, three pounds and a half; water, six gallons.

Cut the heads, and boil them in the water, stirring them now and then to prevent their burning, till only but one third part of the liquor remains, which will be almost entirely soaked up by the poppies. Then remove the vessel from the fire, strongly press out

the decoction, and boil it down to about four pints: strain it whilst hot, first through a sieve, and afterwards through a fine woollen cloth; and set it by for a night, that the faeces may subside. Next morning, pour the liquor off clear, and boil it with six pounds of double refined sugar, until the weight of the whole is nine pounds, or a little more, that it may become a syrup of a proper consistence.

E. D. *Syrupus Papaveris Albi, seu de Meconio, vulgo Diacodion*.

Syrup of White Poppies, or of Meconium, commonly called Diacodion.

Take of white poppy heads, just ripe, a little dried, and freed from their seeds, two pounds. Boiling water, three gallons; and of pure sugar, four pounds. Slice the heads, and macerate them in the water for a night; then boil until one third only of the water remains, and strongly press out the liquor. Boil this strained liquor to one half, and strain it again; lastly, add the sugar, and boil it to a syrup.

This syrup may also be made by dissolving one drachm of the extract of white poppy heads in two pints of the simple syrup.

Particular care is requisite, in the preparation of this syrup, that it may be always made as nearly as possible, of the same strength. It is given to children, in doses of two or three drachms: to adults, from half an ounce to an ounce and upwards, for obtunding acrimonious humours, easing pain, procuring rest, and answering the other purposes of opiates.

L. D. *Syrupus Papaveris Erratici*.

Syrup of Wild Poppies.

Take of wild poppy flowers, fresh

fresh, four pounds; boiling water, four pints and a half.

Pour the water on the poppies, set them over the fire, and frequently stir them, until the flowers are thoroughly moistened; as soon as they are sunk under the water, let the whole be set by to steep for a night; next day pour off, or press out, the liquor, and set it by for a night longer to settle: afterwards add the proper quantity of double refined sugar to make it into a syrup.

This syrup has been recommended in disorders of the breast, coughs, spitting of blood, pleurifies, and other diseases, both as an emollient, and as an opiate. It is one of the lightest of the opiate medicines, and in this respect so weak, that some have doubted of its having any anodyne quality.

L. D. *Syrupus Pectoralis.*
Pectoral Syrup.

Take of English maidenhair, dried, five ounces; liquorice, four ounces; boiling water, five pints.

Macerate them for some hours, then strain out the liquor, and with a proper quantity of double refined sugar, make it into a syrup.

The title of this composition expresses its medical intention: it is supposed to soften acrimonious humours, allay tickling coughs, and promote the expectoration of tough phlegm.

L. D. *Syrupus e Floribus Paralyfis.*
Syrup of Cowslips.

This is made from cowslip flowers, after the same manner as the syrup of clove July-flowers.

It has been supposed serviceable.

in nervous disorders; its agreeable flavour recommends it to the patient, though at present there are few who suppose it to possess any singular virtues.

L. *Syrupus Rosarum solutivus.*
Solutive Syrup of Roses.

Take the liquor that remains after the distillation of six pounds of damask roses; of double refined sugar, five pounds.

Having pressed out the liquor from the roses, boil it down to three pints, and set it by for a night to settle; next morning, pour it off clear from the sediment, and adding the sugar, boil the mixture to the weight of seven pounds and a half.

This syrup is made from a double infusion of fresh gathered pale roses, after the same manner as the syrup of wild poppies and is called,

E. *Syrupus Rosarum Pallidarum.*
Syrup of Damask Roses.

Take the fresh leaves of damask roses, a pound; boiling water, three pounds, and pure sugar, three pounds. Macerate the roses all night, then to the clear strained liquor add the sugar, and with a gentle heat make a syrup.

The liquor remaining after the distillation of roses is as proper for making this syrup as a fresh infusion of the flowers. This syrup is an agreeable and mild purgative for children, in the dose of half a spoonful, or a spoonful. It likewise proves gently laxative to adults, and does good service in costive habits.

E. *Syrupus de Risibus Siccis.*
Syrup of Dry Roses.

Take of dried red roses, seven
D 4 3 ounces;

ounces ; white sugar, six pounds ; boiling water, four pints.

Infuse the roses in the water for a night, then boil them a little, strain out the liquor, and adding to it the sugar, boil them to the consistence of a syrup.

This syrup is supposed to be mildly astringent : but is principally valued on account of its red colour.

L. *Syrupus Scilliticus.*
Syrup of Squills.

Take of vinegar of squills, a pint and a half ; cinnamon, ginger, each one ounce ; double refined sugar, three pounds and a half.

Steep the spices in the vinegar for three days ; then strain out the liquor, and add the sugar, so as to make a syrup thereof.

E. Take of vinegar of squills, a pint and half ; white sugar, three pounds and a half. Make them into a syrup with a gentle heat.

The spices in the first of these compositions, somewhat alleviate the offensiveness of the squills, though not so much as to prevent the medicine from being disagreeable. It is used chiefly in doses of a spoonful or two, for attenuating viscid phlegm, and promoting expectoration, which it does very powerfully.

L. *Syrupus Simplex.*
The Simple Syrup.

Dissolve in water so much double refined sugar, as will make it into a syrup.

E. *Syrupus Simplex, sive Communis.*
Common Syrup.

Dissolve in water enough of the purest sugar, so as to make a syrup ;

These preparations are plain liquid sweets, void of flavour or colour.

L. *Syrupus e Spina Cervina.*
Syrup of Buckthorn.

Take of the juice of ripe and fresh buckthorn berries, one gallon ; cinnamon, ginger, nutmegs, each one ounce ; doubled refined sugar, seven pounds.

Set the juice by for some days to settle ; then pass it through a strainer, and in some parts thereof macerate the spices. Boil the rest of the juice, adding towards the end that part in which the spices were macerated, first passed thro' a strainer : this part of the process must be so managed, that the whole liquor may be reduced to four pints. Lastly, put in the sugar, and make the mixture into a syrup.

E. Take of the juice of ripe buckthorn berries, depurated, six pounds ; white sugar, three pounds and a half, boil the juice with the sugar, to the consistence of a syrup.

In the former preparation, the disagreeable qualities of the buckthorn berries are abated by the aromatics and the essential oil : they are nevertheless still ungrateful. Three or four spoonfuls operate briskly as a cathartic, and bring away large quantities of serous humours. They sometimes occasion a thirst and dryness of the mouth and fauces, and violent gripes : these may be prevented, by drinking liberally of water-gruel during the operation.

L. *Syrupus Violarum.*
Syrup of Violets.

Take of violets, fresh, and well coloured ;

coloured, two pounds : boiling water, five pints. the clear liquor add the sugar powdered, and make a syrup.

Macerate them for a whole day, in a glass, or at least a glazed earthen vessel ; then pour out the liquor, and pass it through a thin linen cloth, carefully avoiding even the lightest pressure : afterwards, adding the due proportion of sugar, make it into a syrup.

E. Take of March violets, fresh, one pound ; boiling water, three pints.

Steep them together for twenty-four hours ; in an earthen vessel close covered : then strain out the liquor without pressure, and dissolve in it seven pounds and a quarter of white sugar powdered, and make a syrup without boiling.

This syrup is of a very agreeable flavour, and in the quantity of a spoonful or two, proves to children gently laxative. It is apt to lose, in keeping, the elegant blue colour, for which it is chiefly valued.

L. *Syrupus Zinziberis.*
Syrup of Ginger.

Take of ginger, cut into thin slices, four ounces ; boiling water, three pints. Macerate them for some hours, then strain out the liquor, and make it into a syrup with a proper quantity of double refined sugar.

This is an agreeable and moderately aromatic syrup, lightly impregnated with the flavour and virtues of the ginger.

E. D. Take of powdered ginger, three ounces ; boiling water, three pints ; and white sugar, seven pounds and a quarter. Macerate the ginger in the water for twenty-four hours in a close vessel, then to

L. D. *Confectio Allermes.*

Confection of Kermses.

Take of juice of kermes grains, warmed and strained, three pounds ; damask rose water, six ounces by measure ; oil of cinnamon, half a scruple ; double refined sugar, one pound. Dissolve the sugar in the rose water, by the heat of a water bath, into a syrup ; then mix in the juice of kermes, and after it has grown cold, the oil of cinnamon.

E. D. *Syrupus Aceti.*

Syrup of Vinegar.

Take of vinegar, two pints ; white sugar, three pounds and a half ; boil to the consistence of a syrup.

This is reckoned good to expectorate, and cut phlegm ; and in such intentions any other syrup may be helpful ; because the sugar itself has a tendency that way.

Syrupus de Berberis.

Syrup of Barberries.

This is made by boiling in a glazed earthen vessel, two pounds of the juice of the fruit with one pound and a half of fine sugar, to the consistence of a syrup.

Boiling any acid syrup is an error upon two accounts ; because it blunts the acidity, from whence the efficacy is expected, and makes it candy : this is cooling and astringent, but not often used. It makes a good gargarism.

Syrupus Capillorum Veneris.

Syrup of Maidenhair.

Take maidenhair five ounces, steep and boil it in a sufficient quantity of water, with liquorice

Root two ounces. And boil up the clear strained liquor into a syrup, with three pounds of white sugar.

This expectorates as much as the sugar can help it; but as to the other ingredients, it might be all taken in a dose, and therefore cannot have any efficacy to be depended upon.

Syrupus de Caryophyllis Aromaticis.

Syrup of Clove-Spice.

Slice one ounce of cloves, and infuse them for some days in twelve ounces of white wine; then strain and boil the liquor into a syrup, with a sufficient quantity of sugar, which is twenty ounces.

This syrup would not have been worth taking notice of, but that it is often used without order, as a succedaneum to the syrup of clove July-flowers, when it is wanted; because that can be made but once a year; and this, with cochineal, may be brought up exactly to its colour. Their virtues are the same; and in both so insignificant, as not to make this fraud worth notice.

Syrupus Corticum Citriorum.

Syrup of Citron Peels.

Take five ounces of the outer yellow citron peel, full ripe and fresh; of kermes berries, or in their stead of the imported juice, two drachms; of spring-water three pounds; steep them together for one night in a bath heat; and to the strained liquor put two pounds and a half of fine sugar: and with a moderate heat boil them up to the consistence of a syrup.

After the same manner are prepared syrups from the peels of oranges and lemons.

But care must be taken that with

too hasty a heat the aromatic flavour be not evaporated.

Syrupus de Glycyrrhiza.

Syrup of Liquorice.

Take of fresh liquorice, cleansed and bruised, two ounces; of white maidenhair, one ounce; of hyssop, half an ounce. Pour upon these three pounds of boiling spring-water; and after twenty-four hours infusion in a bath-heat, strain out the liquor, clarify it; and with the best honey and fine sugar, of each ten ounces, boil it up to a syrup in a bath-heat.

This was the contrivance of Mesue, and was continued in all the college Dispensatories till the last, without alteration.

Syr. Fl. Persicorum.

Syrup of Peaches.

Take fresh flowers of peaches one pound, and pour upon them three pounds of warm water: after twenty-four hours steeping, press out the liquor, and repeat the infusion with a fresh quantity of flowers five times in the same liquor; then in three pounds of the last straining dissolve two pounds and a half of sugar; and boil it up to a due consistence.

This is generally made by one infusion; pouring on only so much as will scald the flowers. It is a pretty puke for children, and opens a little downwards; its dose is from two drachms to one ounce.

Syrupus de Rhabarbaro.

Syrup of Rhubarb.

Take of the best rhubarb, and of sena leaves, of each two ounces and a half; of cinnamon, one drachm and a half; of ginger, half a drachm; of water eight pounds.

pounds. Let them steep a whole night warm, and then boil the strained liquor to a syrup with two pounds of white sugar; towards the latter end mixing with it two ounces of the solutive syrup of roses.

Mel Saponis. Honey of Soap.

Take common soap, and honey, of each four ounces; salt of tartar, half an ounce; fumitory-water, two drachms. Mix them together.

This stands recommended as a good thing to scour and whiten the skin; but it may also be put to a much more important use, and will frequently do great service in rheumatic pains, if it be well rubbed into the part affected: but it is so penetrating, as sometimes to raise a blister, and at first may enrage the pain. Great improvements may be made with the addition of due quantities of camphor and opium.

Syr. Reftringens.

Restringent Syrup.

Take oak-bark one pound; pomegranate shells, roots of tormentil and bistort, of each two ounces; boil them in cong. i. of spring-water to three pounds; strain the liquor, and let it settle till fine; which pour off by inclination. To the liquid add of the juice of floses, and barberries, of each one pound; evaporate all to two pounds; then add of fine sugar two pounds, and boil to a due consistence.

This makes a syrup so restraining, that it may be trusted in diarrhœas alone, where such things are wanted; as also in all other kinds of fluxes. In agues, and all intermittents, it greatly

helps the bark; and, in children, will sometimes do without it. However, a great deal of that may be spared, if this be contrived into all the forms convenient for it; and the bark itself be made either into boles or electaries with it. In all kinds of hæmorrhages it is very proper, and will do good service in the whites, and female weaknesses.

Mella et Oxymelita.

Honeys and Oxymels.

L. *Mel Ægyptiacum.*

Take of verdegrise, reduced into a very subtil powder, five ounces; honey, fourteen ounces by weight; vinegar, seven ounces, by measure.

Boil these ingredients together, over a gentle fire, till they have acquired a due consistence, and a reddish colour. On keeping this mixture, for some time, the thicker part falls to the bottom; the thinner, which floats on the top, is called *mel Ægyptiacum*.

This preparation is designed only for external use, for cleansing and deterging ulcers, and keeping down fungous flesh: it is serviceable also in venereal ulcerations of the mouth and tonsils. If it should be wanted more acrid, it may be rendered so by shaking the vessel, so as to mix the thick matter at the bottom with the upper thin one.

L. *Mel Elatines.*

Honey of Fluellin.

Take of the depurated juice of fluellin, four pints; clarified honey, four pounds: boil them to a due consistence.

This preparation made its first appearance in the preceding edition of our Pharmacopœia. It is very rarely made use of, and not often kept in the shops.

L. D. *Mel Helleboratum.*
Honey of Hellebore.

Take of white hellebore roots, dried and cut in slices, one pound; clarified honey, three pounds; water, four pints.

Let the roots be macerated in the water for three days, and then boiled a little; press out the liquor, and having passed it again through a strainer, boil it with the honey to a proper thickness.

Particular care ought to be had to reduce this preparation as nearly as possible to the honey consistence, that its strength may not be too uncertain. It acts as a drastic purgative or emetic, too violent and precarious for common use. It has been sometimes given in maniacal cases, in doses of one or two drachms, and upwards; though more frequently employed in clysters. The present practice very rarely makes use of it at all.

L. D. *Mel Rosaceum.*
Honey of Roses.

Take of red rose buds, freed from the heels, and hastily dried, four ounces; boiling water, three pints, clarified honey, five pounds: steep the roses in the water for some hours, then strain off the liquor, mix with it the honey, and boil them to a due consistence.

E. D. *Mel Rosaceum.*

Take of red roses, dried, half a pound; boiling water, four pints; honey, six pounds. Steep the roses in the water for a night, then strain out the liquor, add to it the honey, and boil the mixture to the consistence of a syrup.

This preparation is frequently made use of as a mild cooling detergent, particularly in gargarisms

for ulcerations and inflammation of the mouth and tonsils.

L. D. *Oxymel ex Allio.*
Oxymel of Garlic.

Take of garlic, cut in slices, an ounce and a half; carraway seeds, sweet fennel seeds, each two drachms; clarified honey, ten ounces, by weight; vinegar, half a pint. Boil the vinegar for a little time, with the seeds bruised, in a glazed earthen vessel; then add the garlic, and cover the vessel close; when grown cold, press out the liquor, and dissolve in it the honey, by the heat of a water-bath.

This oxymel is recommended for attenuating viscid juices, promoting expectoration, and the fluid secretions in general. It is doubtless a medicine of considerable efficacy, though very unpleasant, the flavour of the garlic prevailing, notwithstanding the addition of the aromatic seeds.

Oxymel Calcicum.

Oxymel of Meadow Saffron.

Take of clarified honey, two pounds; vinegar of meadow saffron, one pint: boil them in a glazed earthen vessel, over a gentle fire, to the consistence of a syrup.

This oxymel is the mildest preparation of the root; it has an agreeable acid taste, vellicates the tongue gently, has a moderately astringent quality, and is excellent for cleansing the tongue from mucus. In an increased dose, it is an emetic, and sometimes a purge; but its most remarkable effect is as a diuretic.

Where the serum stagnates, or superabounds, and the morbid matter may be prudently carried off by the kidneys, this oxymel may

may be used to great advantage ; whence it is particularly adapted to the relief of hydropic patients. And it is peculiarly in the favour of this preparation, that a great quantity is not necessary to cure the most obstinate distempers.

The dose, when designed as a diuretic, is to begin with a tea-spoonful twice a day, in any convenient liquor : on the second or third day, give the same dose three times a day ; after that four times a day : and if the patient easily bears this dose, and the proper effect does not follow, it may be gradually increased to a whole ounce in a day, and even an ounce and a half ; but if this last quantity has no effect, then little or nothing is to be expected from this or any other medicine.

Oxymel Pectorale.

Pectoral Oxymel.

Take of elecampane roots, one ounce ; Florence orris roots, half an ounce ; gum ammoniacum, one ounce ; vinegar, half a pint ; clarified honey, one pound ; water, three pints. Let the roots, cut and bruised, be boiled in the water till a pint is wasted ; then strain off the liquor, and add to it the gum ammoniacum, previously dissolved in the vinegar, and the honey : boil the whole together a little.

The title of this composition expresses its medical virtues. It is designed for those disorders of the breast that proceed from a load of viscid phlegm (which this medicine attenuates, and promotes the expectoration of,) and obstructions of the pulmonary vessels. Two or three spoonfuls may be taken every night and morning, and continued for some time.

L. D. Oxymel Scilliticum.

Oxymel of Squills.

Take of clarified honey, three pounds ; vinegar of squills, two pints, With E. D. four pounds of clarified honey. Boil them in a glazed earthen vessel, over a gentle fire, to the consistence of a syrup.

Oxymel of squills is an useful aperient, detergent, and expectorant ; and of great service in humoral asthmas, coughs, and other disorders, where thick phlegm abounds. It is given in doses of two or three drachms, along with some aromatic water, as that of cinnamon, to prevent the nausea which it would otherwise be apt to excite. In large doses it proves emetic.

L. D. Oxymel simplex.

Simple Oxymel.

Take of clarified honey, two pounds ; vinegar, one pint : boil them in a glazed earthen vessel, over a gentle fire, to the consistence of a syrup.

Honeys of former Dispensatories.

Mel Anthosatum.

Honey of Rosemary.

Take of rosemary flowers, fresh gathered, one pound ; of clarified honey, three pounds : mix them together in a pot, expose them to the sun, and keep the mixture for use.

Mel Mercuriale.

Honey of Mercury.

Take of the juice of mercury, three pounds ; of honey, two pounds : let them be depurated, and boiled up together to the consistence of honey.

Mel

Mel Mororum, vel Diamoron.

Honey of Mulberries.

Take of the juice of mulberries, both of the tree and shrub, gathered unripe, before sun-rise, and depurated by settling, of each one pound and a half; of honey strained and despumated, two pounds: Let them simmer together, in a gentle heat, to a due consistence.

Mel Violaceum. Honey of Violets.

It is made altogether as the honey of roses.

Succi et Gelatinæ. Juices and Jellies.L. D. *Succi Scorbutici.*

The Scorbutic Juices.

Take of the juice of garden scurvy-grass, two pints; brooklime, one pint; water-creffes, one pint; Seville oranges, a pint and quarter. Mix them together; let them stand till the scæces have subsided, and then either pour the liquor off clear, or pass it through a strainer.

E. D. *Succi Adscorbuticos.*

Take of the juice of garden scurvy-grass, oranges, and water-creffes, each one pint; spirituous nutmeg-water a quarter of a pint; and let them stand until the scæces have settled, then pour off the clear liquor.

Both these compositions are of considerable use for the purposes expressed in the title: the orange juice is an excellent assistant to the scurvy-grass, and other acrid antiscorbutics, which, thus mixed, have been found from experience to produce much better effects than when exhibited by themselves. These juices may be taken from two or three ounces, to as much as the stomach can bear, two or three times a day: they generally in-

crease the urinary secretions, and sometimes introduce a laxative habit.

L. *Rob Baccarum Sambuci.*

Rob of Elder Berries.

Let the depurated juice of elderberries be inspissated with a gentle heat.

E. Take two quarts of the juice of ripe elderberries, and half a pound of refined sugar. Evaporate, over a gentle fire, to the consistence of honey.

This rob is a powerful saponaceous resolvent, opens obstructions of the viscera, promotes the natural secretions by stool, urine, and sweat; and by this means does service in sundry chronical disorders. The dose is from a drachm or two to an ounce or more. A spoonful, diluted with water, is usefully taken, in common colds, at bed time.

Succus Prunorum Silvestrium, sive Acacia Germanica.

Juice of Sloes, or German Acacia.

Let any quantity of the juice of unripe sloes be inspissated over a gentle fire.

This is a moderately strong astringent, similar to the Egyptian acacia, for which it is not unfrequently substituted. It is given in fluxes, &c. from a scruple to a drachm.

Gelatina seu Miva Cydoniorum.

Gelly or Marmalade of Quinces.

Take three pints of depurated quince juice, and a pound of white sugar: boil them together according to art.

This is an useful, cooling, restraining medicine: it is given in weakness of the stomach, reachings to vomit, diarrhœas, and dysenteries

ries proceeding from a hot indispotion, or sharp bilious humours. The dose is from a drachm to half an ounce or more.

Gelatina Berberorum.

Gelly of Barberries.

Take a pound of barberries, picked clean from the stalks; and the same quantity of white sugar. Boil them with a gentle heat to a due consistence; then pass the gelly through a flannel cloth.

Gelatina Ribesiorum.

Gelly of Currants,

Is prepared after the same manner.

Both these preparations are gratefully *dulco-acid* and cooling, and in this intention are made use of for moistening the mouth and fauces in inflammatory distempers. Dissolved in water, they afford an useful diluent drink, of a saponaceous nature, which mingles with the blood, or its serum, when thickened (as in some kinds of fevers) where pure water runs off by the kidneys almost unchanged.

L. *Elaterium.*

Slit ripe wild cucumbers, and having very lightly pressed out the juice, pass it through a fine hair sieve, into a glazed earthen vessel. After standing for some hours, the thicker part will fall to the bottom, when the thinner is to be poured off, and what liquid matter is still left, separated by filtration. The remaining thick part is to be covered with a linen cloth, and exposed to the sun, or other gentle heat, till grown thoroughly dry.

The kind of filter proper to be used in this preparation, is a twist of cotton thread made wet, of

which one end must lie in the fluid, and the other, being laid over the side of the vessel, must hang down; by which means the liquid being attracted, will drop from it, till the greatest part is drained off, and the more solid substance is left behind.

Elaterium is a strong cathartic, and oftentimes proves violently emetic. It is exhibited in dropsies, where medicines of the most powerful kind are necessary, from one to four or five grains; and sometimes added in smaller quantities, as a stimulus to the weaker purgatives.

From the former London Dispensatory, and common Practice.

Rob, five Sapa simplex.

The simple Rob, or Sapa.

Take of juice newly expressed from generous and white grapes, any quantity; and boil it over a slow fire, until one pint of it only remains out of three, or it becomes of a honey consistence.

Rob de Berberis. Rob of Barberries.

Take of the clear strained juice of barberries, one pound; of fine sugar, half a pound. Let them be exhaled by a slow heat, to a due consistence.

Rob de Cerasis. Rob of Cherries.

Take of the juice of red tart cherries, as much as is thought fit, and with half its quantity of fine sugar; boil them over a slow fire, as above directed.

Rob de Cornis. Rob of wild Cherries.

Take one pound of wild cherries, and macerate them in a sufficient quantity of spring-water, till the pulp can be passed through a sieve; then evaporate the superfluous humidity, and with half a pound

pound of fine sugar, boil it up to a due consistence.

Rob Cydoniorum.

Rob of Quinces.

Take of the depurated juice of quinces, as much as you please; and after it is gently boiled to the consumption of a third part, add to it half as much of the finest sugar; and continue a slow heat, till it becomes of a due consistence.

Mixa vel Gelatina, corundem.

Gelly of the same.

Take of the juice of quinces, clear from its faces, twelve pounds; evaporate half by boiling, and to the remainder put five pounds of old white-wine, and again exhale to the consumption of a third part, taking off the scum as it rises. Let the remainder settle and be strained, and with the addition of three pounds of sugar, be boiled up to a due consistence, *f. a.*

Rob Prunorum acidorum.

Rob of Sloes.

It is to be made in the same manner as the rob of quinces; and in both, the sugar is of no great consequence, but may be proportioned at pleasure.

Rob de Ribes.

Rob of Currants.

This is to be made after the same manner as the *rob de berberis*, from the juice well defecated; and therefore it ought to be scummed over the fire, before it is put to settle.

Rob Baccarum Sambuci.

Rob of Elder-berries.

Take of the juice of elder-berries any quantity, and let it lei-

surely be inspissated over a gentle fire, either by itself, or with a fourth part of sugar.

After the same manner is prepared the rob of dwarf-clder, of juniper, and veronica; unless that in the latter, the sugar and juices are required of equal quantities. And after like manner others also may be prepared.

Succus Glycyrrhizæ simplex.

Simple Juice of Liquorice.

Take any quantity of the best liquorice root, after it is cleansed, and a little bruised, steep it for three days in as much spring-water as will cover it about three fingers breadth: then give them a boil together, and press out the liquor, which with a slow fire exhale to a due consistence, *f. a.*

The old Dispensatories, especially those of the German writers, abound very much with these forms, as they borrowed them from the Arabians; but they are greatly in disuse of late, inasmuch, that of what the college have here thought fit to retain, very few are made by the Apothecaries: most of the materials being managed by our Confectioners in a manner rather more elegant, and as well suited to any medicinal intention, especially the quinces. The juice of liquorice is indeed greatly used, and, as here directed, ought to be prepared for all extemporaneous prescriptions: because what is brought from abroad is frequently too foul, or so much damaged, as not only to elude a Physician's intentions, but is also liable to do mischief, by causing obstructions, where it is given as a detergent and a deobstruent.

Lohochs of the former Edinburgh Dispensatory.

Lohoch Commune.

Common Lohoch.

Take of fresh drawn oil of sweet almonds, and pectoral or balsamic syrup, each one ounce; white sugar, two drachms: mix, and make them into a lohoch.

Lohoch ex Amylo.

Lohoch of Starch.

Take of the starch of tragacanth, two drachms; Japan earth, one drachm; whites of eggs beat into a fluid, one ounce; syrup of balsam as much; mix and make them into a lohoch.

Lohoch de Lino.

Lohoch of Linseed Oil.

Take of fresh drawn linseed-oil, and balsamic syrup, each one ounce; flowers of sulphur, and white sugar, each two drachms: mix, and make them into a lohoch.

Lohoch de Manna.

Lohoch of Manna.

Take of Calabrian manna, fresh drawn oil of sweet almonds, and syrup of violets, each equal quantities; mix them into a lohoch.

Lohoch Saponaceum.

Soap Lohoch.

Take of Castile-soap, one drachm; oil of almonds, one ounce; syrup of lemon juice, one ounce and a half; make them into a lohoch.

Lohoch de Sperma Ceti.

Lohoch of Sperma Ceti.

Take two drachms of sperma ceti, rub it together with yolk of eggs, as will fit it to mix with half

an ounce of fresh drawn oil of almonds, and one ounce of balsamic syrup, into the consistence of a lohoch.

Lohoch, eclegma, linctus or *Lambative*, is of a middle consistence between a syrup and electary. It is calculated chiefly for the exhibition of pectorals. It is an ill-contrived form, and therefore almost entirely left off; the London Dispensatory has rejected them entirely, and also the present Edinburgh. The oily and mucilaginous substances are disagreeable to the palate, and injure the stomach.

Lohoch Sanum.

The healing Lohoch.

Take of the leaves of garden hyssop, and of calamint, of each half an ounce; of jubebs and sebestens, stoned, of each number thirty; of stoned raisins, of figs, and new dates, of each two ounces; of linseed, and fenugreek-seed, of each five drachms; of maidenhair, one handful; of the seeds of anise and fennel, of orris root cut into slices; of liquorice, bruised, and cinnamon, of each half an ounce. Let them be all boiled, according to art, in four pounds of water to half its composition; then with the addition of two pounds of barley-sugar, and the solution of gum tragacanth, and arabic, of each three drachms, made in the same decoction, boil them to a syrup; afterwards cut small and bruise, of pine nuts, cleansed, five drachms; of sweet almonds blanched, of liquorice and starch, of each three drachms; of orris root two drachms. Then take the syrup off the fire, and briskly stir in these with a wooden pestle, till the whole grows white.

S E C T. VI.

Of Wines, Tinctures, and Elixirs.

TH E R E can be nothing difficult in the management of this part, to one who has made himself acquainted with Part I. concerning digestion, dissolution, and the difference of menstruums. And as almost the whole of the *Materia Medica* is conveniently enough, upon many accounts, reducible into these forms, this division will exhaust a great share of this part.

The next way to distillation, of drawing out the medicinal virtues of things, is by tincture. And these processes differ only in this, that the former can take out those lighter parts only which are able to rise in vapour, and the latter all such parts as are capable of being suspended in a menstruum. The chief rule is, that the liquor made use of for a menstruum or vehicle, be more or less spirituous, as the ingredients which are ordered in it are of a lighter or more fixed nature; and the times of standing in digestion, either hot or cold, are likewise to be proportioned accordingly.

Under the denomination of tinctures and elixirs, are generally included those things of a volatile light texture, which best give out their virtues to spirituous liquors, and require nothing but digestion to prepare them; and these are either simple or compound. Of the former, are the *tinctura croci, castorei, myrrhæ simplex, sulphuris, serpentariæ*, and *rosarum rubrarum*; all which are ordered in liquors

judged suitable to their respective textures and virtues. Saffron is drawn with the *aqua theriacalis* in the intention of an alexipharmic; but as a cordial, and for the better preservation of its colour, which soon fades with any acid, liberty is given to infuse it likewise in Canary, or French brandy. The tincture of castor is likewise drawn by a spirit with equal ease and readiness, because both these are of a lax texture, and soon open in such vehicles; but the myrrh, upon account of its tenacity, requires a mixture of salt of tartar with it, and to stand for some time, previous to its infusion in spirit; by which means its adhesive texture is broken, and it comes more readily to unite with the spirit afterwards. Something like to this is ordered with the *radix serpentariæ Virginianæ*, it being directed to be drawn with the *tinctura salis tartari*; but if this root is broke small in the mortar, it gives out all its warmth to a vinous spirit, and some the rather prefer it, because the *tinctura salis tartari* gives to it a nauseous, urinous scent, and makes it almost intolerably burning in the stomach; which quality, in itself, is frequently moderated with acids, which is a very opposite management to this. The red roses are drawn only with hot water, acidulated with oil of vitriol, which not only greatly assists the intention of an astringent in all instances, as well as this, but likewise contributes to strike a most beautiful red colour.

colour. The *tinctura papaveris* becomes a compound only by the addition of some nutmeg, and it agrees with the roses in this respect, of being greatly improvable in its colour by acids, but both would change into a most unsightly green, were salt of tartar, or any alkalious matter, to touch them; a difference very proper to take notice of.

In all compound tinctures, or elixirs drawn with a spirit, and where the dose is so small as to be assigned in drops, especial care ought to be taken not to interpose any ingredients which are not of proportionable efficacy with the rest, howsoever they may agree in intention. For it is not here as in distillation, where an useles or a weak ingredient may do no harm; because in tincture every such one will so help to fate the menstruum with somewhat, that it will be less able to take up things of more efficacy, and will consequently be, in the whole, a weaker medicine. Thus in the elixir *vitrioli Mynsichti*, though mint certainly comes within the intention of a stomachic, and sage may be allowed to do so too; yet in a medicine that will not bear exhibition in a larger quantity than twenty or thirty drops for a dose, such things are very improperly crowded; for besides the hindrance they occasion to the menstruum in taking up the other more efficacious ingredients, by fating it with something from themselves, if we compute the share they have in a dose, it will vanish almost to nothing; for here is no more than half a handful of these things in a quantity that makes some thousands of doses; whereas common experience informs us that they may be, and

frequently are, taken with our common food, in as large quantities, as they enter into the whole of this composition, without any inconvenience. What the sugarcandy does in this composition is, likewise, not easy to guess or justify; and the *oleum vitrioli* seems to be ordered in too large a quantity, the sharpness of that necessarily making a dose so small, that the spices have not a due proportion in it. But the greatest error in this celebrated medicine consists in the making, when they are all digested together; for the oil of vitriol entirely burns and hardens the ingredients, so that they not only give out their virtues the less, but also deform the whole with a blackish dirty colour; both which inconveniences might be avoided, by infusing the spices in the spirit alone, and after that is strained fine, the *oleum vitrioli* might be added, which then only gives to it a thicker consistence, and somewhat raises its colour.

The same is observable of the acid in that sort of *elixir proprietatis* which is made with it. If it be put upon the ingredients with the spirit, it unsuits them for giving out their virtues, and will not admit of so good a colour or consistence as when put in afterwards.

These remarks naturally lead us to another circumstance, very necessary to be regarded in the extraction of all compound tinctures; and that is, when the ingredients are so different in texture, that some open and fate the menstruum much sooner than others, they ought to be drawn separately, with a proportionable part of the menstruum, because, otherwise, those which with most difficulty give

out their virtues, will have very little or no share in the composition. Thus in the common *elixir proprietatis*, though there are but three ingredients, yet they are so unequal in their fitness for solution, that if they are put in together, the hardest, which is the myrrh, will in a good measure be lost, because the spirit will be very soon loaded with the other two, and consequently become less able to take up that. If therefore they are all infused in their proper shares of spirit, they will be all easily dissolved; and when put together afterwards, with the addition of the acid, they will make a most beautiful high-coloured tincture, almost of the consistence of a syrup. To this rule the *elixir proprietatis Helmontii* hath a particular regard, where the aloes and saffron, which are of the loosest texture, are dissolved together, and the myrrh separately from them both, the several tinctures being at last united.

Thus, likewise, in the compound tincture of myrrh, if the myrrh be first dissolved, the aloes, with equal ease, will afterwards be taken up; but if they are put in together, the aloes load the spirit so soon, that the myrrh will be much longer in solution. And in all the liquid laudanums, if the spices are first drawn out, the opium will soon dissolve afterwards; but if the opium be put in with them, they will give out their virtues to great disadvantage. Thus also in the *elixir salutis*, if the seeds, liquorice, and raisins, were added, after the harder ingredients had stood some time in the spirit, the medicine would be the better; but these are circumstances which very few compounders will be exact enough to observe.

As to the medicated wines and vinegars, there is little remarkable. The chalybeate wine seems the best preparation of steel in a liquid form, and is much assisted by the saffron. The *vinum & acetum scil-liticum* seem both contrived for the same purposes, either to make into an oxymel with honey, or else to be given alone as gentle emetics, or in conjunction with warm cordials, as the cinnamon-water, by way of expectorants, or diuretics; for the last intentions, they are, with some, in great esteem. It is disputed whether the viper wine is best made with the vipers dry, as is here ordered, or alive; but the latter seems to have a chance of preserving their virtues with most certainty, though the volatile salt is best drawn from them when dry.

Wines, Tinctures, and Elixirs

L. *Vinum Aloeticum Alcalinum.*

Alcaline Aloetic Wine.

Take of any fixed alkaline salt, eight ounces; Succotrine aloes, saffron, myrrh, each one ounce; sal ammoniac, purified, six drachms; mountain-wine, two pints. Macerate without heat for a week, or longer; then filter the wine through paper.

This is the *elixir proprietatis Helmontii*, with some little variations. It is observable, that though *sal ammoniac* is used as an ingredient, yet the preparation, when finished, does not contain any; the same change happening to that salt here, as in the distillation of the *Spiritus salis ammoniaci*.

Helmont's elixir, in our preceding Pharmacopœia, is thus directed: take of red tartar, nitre, each twelve ounces; white wine, two pints; aloes, saffron, each an ounce and

a half. Let the nitre and tartar be reduced into powder, and the mixture thrown by degrees into a hot crucible: when sufficiently calcined, pour the matter into a glass mortar, and add the wine, so as to make a ley thereof; with which ley, a tincture is to be drawn from the aloes and saffron. Take also of sal ammoniac, eight ounces; white wine, one pint; myrrh, an ounce and a half. Dissolve the sal ammoniac in the water, strain the solution, and evaporate it to driness. One ounce of this dry salt is to be dissolved in the water; and with this solution, draw a tincture from the myrrh. Mix both tinctures together, in a close vessel, so as to make them into an elixir.

The preparation made after this troublesome method is not different from the foregoing. The nitre and tartar when calcined together, form an alkaline salt, similar to those which the shops are supplied with at a cheaper rate.

Helmont and others have entertained a very high opinion of this medicine, and looked upon it as a vivifying and preserving balsam, capable of continuing health and prolonging life to the utmost possible limits. The medicine is doubtless a very efficacious one for many purposes: it attenuates viscid juices, and opens obstructions in the remoter parts, and promotes evacuation by almost all the emunctories. In doses of one, two, or three drachms, it increases the urinary secretion; and if the patient is kept moderately warm, generally proves diaphoretic or sudorific; in larger doses, it gently loosens the belly;

L. *Vinum Amarum.*
Bitter Wine.

Take of gentian root, yellow rind of lemon peel, fresh, each one ounce; long pepper, two drachms; mountain wine, two pints: macerate without heat, and strain out the wine for use.

This is a very elegant bitter, considerably warmer than the watery infusion.

E. *Vinum Amarum.*
Bitter Wine.

Take of gentian root, half an ounce; Peruvian bark, one ounce; Seville orange-peel, dried, two drachms; white Canella bark, one drachm; proof spirit of wine, four ounces; mountain wine, two pints.

First pour on the spirit, then the wine; and let them stand together, without heat, four days; and then strain.

This wine is sometimes used instead of the Tinct. ad Stomachicos.

L. *Vinum Antimoniale.*
Antimonial Wine.

Take of crocus of antimony, washed, one ounce; mountain wine, a pint and a half; digest without heat, and filter the wine through paper.

E. *Vinum Antimoniale.*
Antimonial Wine.

Take the glass of antimony, subtilly levigated, one ounce; mountain wine, one pint. Macerate three days, now and then shaking the mixture, then filter through paper.

The antimonial wine possesses the whole virtues of that mineral, and may be so dosed and managed, as to perform all that can be effected by any antimonial preparation; with this advantage, that as

the active part of the antimony is here already dissolved and rendered miscible with the animal fluids, its operation is more constant and certain. Given from ten to fifty or sixty drops, it acts as an alterative and diaphoretic; in larger doses, as a diuretic and cathartic; whilst two, three, or four drachms prove virulently emetic. It has been chiefly used in this last intention, in some maniacal and apoplectic cases, and hence gained the name of emetic wine.

L. *Vinum Chalybeatum.*
Steel Wine.

Take of iron filings, four ounces; cinnamon, mace, each half an ounce; Rhenish wine, four pints. Macerate without heat for a month, frequently shaking the vessel, then strain off the wine for use.

Steel wine is a very useful preparation of this metal, and frequently exhibited in chlorotic and other indispositions where chalybeates are proper. Boerhaave recommends it as one of the noblest medicines he was acquainted with, for promoting that power in the body by which blood is made, when weakened by a bare debility of the over relaxed solids, and an indolent, cold, aqueous indisposition of the juices; but it proves hurtful, where the vital powers are already too strong, whether this proceeds from the fluids or the solids. The dose is from a drachm to half an ounce, which may be repeated two or three times a day.

L. *Vinum Croccum.*
Saffron Wine.

Take of saffron, one ounce; Canary, one pint. Macerate without heat, and strain off the wine.

The dose of this tincture is from one drachm to three or more.

E. *Vinum Dictamni Albi.*
White Dittany Wine.

Take the powder of white dittany root, one ounce; filings of iron, not rusted, three drachms; mountain wine, a pint. Digest them twenty-four hours, and filter through paper.

L. *Vinum Ipecacuanbæ.*
Wine of Ipecacuanha.

Take of ipecacuanha, two ounces; yellow rind of Seville orange peel, dried, half an ounce; Canary, two pints. Macerate without heat, and strain out the wine.

E. *Tinctura Ipecacuanbæ.*
Tincture of Ipecacuanha.

Take of ipecacuanha, in powder, one ounce; mountain wine, one pint. After three days digestion, let the tincture be filtered for use.

Both these wines are very mild and safe emetics, and equally serviceable in dysenteries also, with the ipecacuanha in substance. The dose of these tinctures is half an ounce, more or less, according to the age and strength of the patient.

L. *Vinum Viperinum.*
Viper Wine.

Take of dry vipers, two ounces; mountain, three pints. Macerate with a gentle heat for a week, and then strain off the wine.

It has been disputed whether live or dry vipers are preferable for making this medicine: such as are moderately and newly dried, are perhaps the most eligible, since by exsiccation they seem to lose only the aqueous parts. Whether they communicate to the wine so much virtue as they are supposed to do, is greatly to be doubted. Some compositions under this name have been.

been highly celebrated, as restoratives, in debilities and decays of constitution; but what virtues of this kind they possessed, were supplied chiefly from other ingredients.

E. *Vinum Millepedatum.*
Wine of Millepedes.

Take of live millepedes, bruised, two ounces; Rhenish wine, one pint. Infuse them together for a night, and afterwards press the liquor through a strainer.

This wine has been commended as an admirable cleanser of all the viscera, yielding to nothing in the jaundice, many chronical distempers, in serophulous swellings, and in defluxions upon the eyes. But those who expected these virtues from it, have often been deceived; and at present, there are few who have any great dependence on it. It is directed to be given from half an ounce to two ounces.

E. *Vinum Rhei.*
Rhubarb Wine.

Take of rhubarb, two ounces; canella alba, one drachm; proof spirit of wine, two ounces; mountain wine, a pint. Macerate seven days, and strain.

Tinctura Cephalica.
Cephalic Tincture.

Take of wild valerian root, four ounces; Virginian snake-root, one ounce; rosemary tops, half an ounce; French white wine, six pints: digest them together for three days, and then filter the tincture.

The rosemary and valerian are very good cephalics. The dose is from half an ounce to two ounces.

Tinctura Cephalica Purgans.
Purging Cephalic Tincture.

This is made by adding to the foregoing, of senna, two ounces; black hellebore roots, one ounce; French white wine, two pints. The title of this medicine expresses the purposes it is designed for. It is but weakly purgative.

Tinctura Menthae.
Tincture of Mint.

Take of simple spearmint water, one pint: spearmint leaves dried, half an ounce. Let them steep together in a close vessel, set them in a warm place, for four hours, and then strain the tincture.

This tincture is very rich in the virtues of the mint, and proves much superior as a medicine to the cohobated water, which some have strongly recommended.

E. *Tinctura Moschi.*
Tincture of Musk.

Take of musk, two drachms; rectified spirit of wine, a pint. Digest ten days, and strain.

L. *Tinctura Rhabarbari Vinosa.*
Vinous Tincture of Rhubarb.

Take of rhubarb, two ounces; lesser cardamom seeds, freed from the husk, half an ounce; saffron, two drachms; mountain wine, two pints. Macerate without heat, and then strain off the tincture.

This is a warm, cordial, laxative medicine. It is used chiefly in weakness of the stomach and bowels; and some kinds of loosenesses, for evacuating the offending matter, and strengthening the tone of the viscera. It may be given from half a spoonful to three or four spoonfuls, or more, according to the strength of the patient, and

the purposes herein intended to answer.

L. *Tinctura Sacra.*

Take of Succotrine aloes, eight ounces; canella alba, two ounces; mountain wine, ten pints. Reduce the aloes and canella separately into powder, then mix, and pour on them the wine; afterwards macerate without heat, for a week or longer, occasionally shaking the vessel; lastly strain off the wine.

It will be convenient to mix with the powders some white sand, well washed from dirt, to prevent the aloes from concreting, which it is apt to do upon being moistened.

E. Take of Succotrine aloes in powder, one ounce; ginger and Jamaica pepper, each one drachm; mountain wine, a pint and a half. Digest for seven days, and strain off the tincture.

The *tinctura sacra* (now called by the Edinburgh College *vinum aloeticum*) appears from long experience, to be a medicine of excellent service in languid phlegmatic habits, not only for cleansing the *primæ viæ*, but likewise for attenuating and dissolving viscid juices in the remoter parts, stimulating the solids, warming the habit, promoting or exciting the uterine purgations, and the hæmorrhoidal flux. The dose, as a purgative, is from one to four ounces, or more: it may be introduced into the habit, so as to be productive of excellent effects, as an alterant, by giving it in small doses, at proper intervals; thus managed, it does not for a considerable time operate remarkably by stool; but at length proves purgative, and occasions a lax habit

of much longer continuance than that produced by any other cathartic.

E. L. *Tinctura Rosarum.*

Tincture of Roses.

Take of red rose buds, freed from the white heels, half an ounce; strong spirit (called oil) of vitriol, one scruple; boiling water, two pints and a half; double refined sugar, one ounce and a half. First mingle the spirits of vitriol with the water, in a glass or glazed earthen vessel, and in this mixture macerate the roses; when the liquor is grown cold, strain it, and add the sugar.

Take of red roses, dried one ounce; spirit of vitriol, one drachm: boiling water, four pints; white sugar, two ounces. Macerate the roses with the water, in an unglazed earthen vessel, four hours; afterwards, to the strained liquor add the acid and the sugar.

This tincture is of an elegant red colour, and makes a very grateful julep in all cases that require mild coolers and subastringents: it is well suited for drinking after boluses, or electaries of the bark; and likewise makes a good gargle.

E. *Tinctura Thebaica, vulgo Laudanum Liquidum.*

Take opium, two ounces; spirituous cinnamon water, twenty ounces; digest four days, then filter through paper.

In the spirituous tinctures, a part of the opium falls to the bottom, and in the vinous, forms a crust towards the surface, about the sides of the glass: the quantity which thus separates, if the tincture is long kept, amounts in either case, to about one fourth of the opium: so that the medicine, newly made,

made, is one fourth stronger than after it has been kept; a circumstance certainly of great consequence. An equal part of wine and brandy; or, one part alcohol of wine, mixed with two parts of pure water, are menstrual, and free from this inconvenience.

These preparations have no virtues distinct from those of simple opium; the quantity of additional ingredients in the largest dose that can be ventured on, being too inconsiderable to produce any sensible effect. The saffron has been looked upon as a corrector of opium; but the ill qualities it was supposed to correct, are merely imaginary. The principal advantages of exhibiting opium in this form are, that by being already dissolved, it exerts itself the sooner in the body; and that by some persons, liquids are more commodiously taken, than the bolus or pill. The common doses of these tinctures are from ten drops to forty, fifty, or more, according to the exigencies of the case.

Note. To all the foregoing wines, after they had been strained, you may add about one twentieth their quantity of proof spirit, to preserve them from fermentation. They may be conveniently kept in the same kind of glass bottles that wines generally are for common uses, which should likewise be corked with the same care.

E. *Tinctura Absinthii.*
Tincture of Wormwood.

Take of the dried flowering tops of wormwood, four ounces; rectified spirit of wine, two pints; macerate two days, and strain; to the strained liquor, add two ounces more of the flowering tops of

wormwood dried; macerate again during four days, then strain through linen, and lastly filter the strained liquor through paper.

L. *Tinctura Amara.*
Bitter Tincture.

Take of gentian root, two ounces; yellow rind of Seville orange peel, dried, one ounce; lesser cardamom seeds, freed from the husks, half an ounce; proof spirit, two pints. Digest without heat, and strain off the tincture.

This is a very elegant spirituous bitter. The Edinburgh Pharmacopœia has a composition similar in intention to this, under the title of

E. D. *Tinctura Amara sive Elixir Stomachicum.*
Stomachic Elixir.

Take of orange peel, one ounce; gentian, two ounces; white cannella, half an ounce; cochineal, half a drachm; French brandy, two pints. Let them steep for four days, and then filter.

Both these medicines are useful stomachic bitters; their virtues as such, may be seen under the head of *Bitters*.

L. D. *Tinctura Aromatica.*
Aromatic Tincture.

Take of cinnamon, six drachms; lesser cardamom seeds, freed from the husks, three drachms; long pepper, ginger, each two drachms; proof spirit, two pints. Digest without heat, and then strain off the tincture.

E. D. *Tinctura Aromatica.*
The Aromatic Tincture.

Take of cinnamon, six drachms; lesser cardamom seeds, one ounce; garden angelica seeds, three drachms;

drachms; long pepper, two drachms; proof spirit, two pints. Macerate seven days, and filter through paper.

These are very warm aromatics. A tea spoonful or two may be taken in wine, or any other convenient vehicle, in languors, weakness of the stomach, and flatulencies. The stomachic tincture is similar in intention to this, but contrived less hot of the spices, that it may be taken by itself,

Tinctura Balsamica.

Balsamic Tincture.

Take of balsam of Copaiba, one ounce and a half; of Peru, half an ounce; English saffron, one drachm; rectified spirit of wine, one pint. Digest in a sand heat, for three days; and then strain the tincture.

This tincture is an excellent balsamic. It is usually given in doses of ten, twenty, or thirty drops, in the *fluor albus*, glects, cachexies, some kinds of asthmas and nephritic complaints, for strengthening the viscera, and the nervous system in general. In cold, languid, phlegmatic habits, they have for the most part good effects; but where there is any tendency to inflammation, they are manifestly prejudicial.

Tinctura Benzoini.

Tincture of Benzoin.

Take of benzoin, four ounces; rectified spirit of wine, one pint. Digest them together in a sand heat for three or four days, and then decant off the tincture.

This tincture stands recommended in asthmas, and other disorders of the lungs, in doses from twenty to sixty or seventy drops. It has, however, been principally made use of externally, as

a cosmetic, for clearing and smoothing the skin: for these purposes it is mixed with a large proportion of water, when it forms a white liquor called *lac virginis*. If this be suffered to rest for some time, the benzoine precipitates, in form of a white magistery (of a very pleasant smell, and not disagreeable taste), which, in the *Brandenburgh Pharmacopœia*, is preferred, to the flowers of benzoine, as being free from the empyreumatic flavour which these are generally attended with. The precipitation is directed to be made with rose water.

L. *Tinctura Cantharidum.*

Tincture of Cantharides.

Take of cantharides, bruised, two drachms; cochineal, half a drachm; proof spirit, a pint and a half. Digest them together, and afterwards filter the tincture thro' paper.

E. Take of cantharides, two drachms; proof spirit of wine, a pint and a half. Digest the cantharides in the spirit for four days; then filter the liquor thro' paper.

These tinctures are the only officinal preparations of cantharides, designed for internal use. They possess nearly the whole virtues of the fly itself; and require the same cautions in their exhibition. See the article Cantharides. The usual dose is fifteen or twenty drops.

L.E. *Tinctura Cardamomi.*

Tincture of Cardamoms.

Take of lesser cardamom seeds, husked, half a pound; proof spirit, two pints. Digest without heat, eight days, and strain the tincture.

This tincture is a pleasant, warm

warm cordial, and may be taken, along with any proper vehicle, from a drachm to a spoonful or two.

L. *Tinctura Castorei.*
Tincture of Castor.

Take of Russia castor, powdered, two ounces; proof spirit, two pints. Digest for ten days without heat, and strain off the tincture.

E. Take of Russia castor, an ounce and a half; rectified spirit of wine, one pint. Digest them with a gentle heat, for six days, and afterwards strain out the liquor.

Dr. Lewis observes, that castor macerated without heat, gives out its finer and most grateful parts, to either proof or rectified spirit, tho' most perfectly to the rectified: that heat extracts also the grosser and more nauseous parts: and that with heat, proof spirit extracts more of the grosser parts than the rectified does.

The tincture of castor is recommended in nervous complaints, and hysterical disorders; in the latter, it sometimes does service. The dose is from twenty drops to forty, fifty, or more.

E. *Tinctura Castorei composita.*
Compound Tincture of Castor.

Take of Russia castor, one ounce; *asa fetida*, half an ounce, volatile aromatic spirit, one pint. Macerate for six days in a bottle well stopped, shaking it frequently, then strain off the tincture.

This is a more efficacious medicine, and more to be depended upon in the same intentions, than the preceding; the dose is the same,

L. *Tinctura Cinnamomi.*
Tincture of Cinnamon.

Take of cinnamon, an ounce and an half; proof spirit, a pint. Digest eight days without heat, and strain off the tincture.

This tincture possesses the astringent virtues of the cinnamon, as well as its aromatic cordial ones; and in this respect it differs from the distilled waters of the spice.

L. *Tinctura Corticis Peruviani simplex.*

Simple Tincture of Peruvian Bark.

Take of Peruvian bark, four ounces; proof spirit, two pints. Digest eight days, and strain.

The menstruum here directed is the most convenient of any, the proof spirit extracting nearly all the virtues of the bark. It may be given from a tea spoonful to half an ounce or an ounce, according to the different purposes it is intended to answer.

L. D. *Tinctura Corticis Peruviani Volatilis.*

Volatile Tincture of Peruvian Bark.

Take of Peruvian bark, four ounces; spirit of sal ammoniac, two pints. Digest without heat, in a vessel close stopt; and afterwards strain the tincture.

This tincture is but lightly impregnated with the virtues of the bark; nevertheless it may be serviceable in some cases where the stronger are improper, as in difficulty of breathing, obstructions, and oppressions of the breast. In cases where the bark is indicated, and something volatile wanted, it may with good success be added to a dose of the decoction, where the circulation is languid, the fibres

bres relaxed, and where there is a periodical return of slight feverish complaints. In these cases, I have often experienced salutary effects from a tincture in dulcified spirit of *sal ammoniac*, given to the quantity of a tea spoonful five or six times a day, in any appropriated vehicle.

E. D. *Tinctura Corticis Peruviani.*
Tincture of Peruvian Bark.

Take of Peruvian bark, in powder, four ounces; French brandy, two pints. Let them steep together for ten days, and filter the tincture.

The substances here joined to the bark, in many cases promote its efficacy in the cure of intermit-tents; and not unfrequently are absolutely necessary. In some ill habits, particularly where the juices are sluggish and tenacious, the viscera and abdominal glands obstructed, the bark by itself proves unsuccessful, if not injurious; whilst given in conjunction with corroborant stomachics and deobstruents, it rarely fails of the due effect. Gentian and Virginian snake-root are among the best additions for this purpose; to which it is often necessary to join chalybeate medicines also.

E. *Tinctura Croci.*
Tincture of Saffron.

Take of English saffron, one ounce; proof spirit, one pint. After digesting them for five days, let the tincture be strained out.

This tincture is similar in virtue to the saffron wine. A spirituous menstruum is here preferred to the wine, as a tincture drawn therewith, retains its elegant colour longer, and is not apt to deposite

in keeping any part of what it had taken up from the saffron.

E. *Tinctura, sive Essentia Dictamnii Albi.*

Tincture (or Essence) of White Dittany Root.

Take of the roots of fresh white dittany, two ounces; rectified spirit of wine, fourteen ounces; digest eight days, and strain thro' paper.

L. *Tinctura Fætida.*
Fetid Tincture.

Take of *asa fætida*, four ounces; rectified spirit of wine, two pints. Digest and strain.

This tincture possesses the virtues of the *asa fætida* itself; and may be given from ten drops to fifty or sixty.

E. *Tinctura Fætida.*
Fetid Tincture.

Take of *asa fætida*, two ounces; vinous spirit of *sal ammoniac*, a pint. Macerate six days in a close vessel, and strain.

L. D. *Tinctura Fuliginis.*
Tincture of Soot.

Take of wood soot, two ounces; *asa fætida*, one ounce; proof spirit, two pints. Digest and strain.

E. Take of shining wood soot, one ounce; *asa fætida*, half an ounce; proof spirit, a pint. Digest for six days and strain.

These medicines are found serviceable, not only in hysteric cases, but likewise in epilepsies, and other nervous disorders.

L. D. *Tinctura Guaiacina-Volatilis.*
Volatile Tincture of Guaiacum.

Take of gum guaiacum, four ounces; volatile aromatic spirit, a pint

a pint and a half. Digest without heat, in a vessel close stopp'd : and afterwards let the tincture be pass'd through a strainer.

This is a very efficacious tincture, the volatile spirit dissolving the gum, and at the same time promoting its medicinal virtue. In rheumatic cases, a tea spoonful, taken two or three times a day in any convenient vehicle, has proved of singular service.

L. D. *Tinctura Jalapii.*
Tincture of Jalep.

Take of jalap root, eight ounces ; proof spirit, two pints. After proper digestion, strain off the tincture.

This is too rough to be taken by itself, but very proper mixed in small quantities with cathartic infusions, or the like.

E. *Tinctura Jalapii.*
Tincture of Jalap.

Take of jalap, in coarse powder, three ounces ; rectified spirit of wine, one pint. Digest them in a gentle heat for eight days, and then strain the tincture.

This is an almost purely resinous tincture, and therefore never to be exhibited by itself. It is commonly given in mixtures of the *tinctura sacra*, syrup of buckthorn, &c. which mixtures should not be very liquid for fear of precipitation.

This objection against the tincture does not reach so far as some seem to suppose ; it certainly behoves the apothecary to be careful in the choice of the root. The inferior sorts may be employed for making the *resina Jalapii*, which they yield in as great perfection, tho' not in so large quantity, as the best, Newman thinks even

the worm-eaten jalap as good for that purpose as any other.

L. E. *Tinctura Japonica.*
Japonic Tincture.

Take of Japan earth, three ounces ; cinnamon, two ounces ; proof spirit, two pints. After proper digestion, let the tincture be pass'd through a strainer. N. B. The Edinburgh College directs it to be digested eight days.

This tincture is of service in all kinds of defluxions, catarrhs, loosenesses, uterine fluors, and other like disorders, where mild astringent medicines are indicated. Two or three tea spoonfuls may be taken every now and then, in red wine, or any other proper vehicle.

E. *Tinctura e Kino.*
Tincture of Kino.

Take of gum kino, two ounces ; proof spirit, a pint. Digest eight days, and strain.

Tinctura Lacca.
Tincture of Gum Lac.

Take of spirit of scurvy grass, a pint and a half ; gum lac, an ounce ; myrrh, half an ounce. Digest with the spirit in a sand heat for six days, after which strain off the tincture for use.

This tincture is employed for strengthening the gums, and in the bleedings and scorbutic exulcerations of them : it may be fitted for use in these intentions, by mixing it with honey of roses, or the like. Some recommend it internally against scorbutic complaints, and as a corroborant in gleet, female weaknesses, &c.

L. *Tinctura Melampodii.*
Melampodium, or Black Hellebore.
Take of black hellebore roots,
four

four ounces ; cochineal, two scruples ; proof spirit, two pints. Digest them together, and afterwards filter the tincture through paper.

E. D. *Tinctura Melampodii, sive Hellebori Nigri.*

Tincture of Black Hellebore.

The same as the preceding, except that half a drachm of cochineal is directed, instead of two scruples, and digestion is ordered for eight days.

This is the best preparation of hellebore, when designed for an alterative. It has been found, from experience, particularly serviceable in uterine obstructions : in sanguine constitutions, where chalybeats are hurtful, it scarce ever fails of exciting the menstrual evacuations, and removing the ill consequences of their suppression. So great is the power of this medicine, that wherever the expected discharge does not succeed upon the exhibition of it, the blood, as Dr. Mead has observed, is so forcibly propelled, as to make its way through other passages. But others say, that its chief excellence as an emmenagogue is when difficulty attends the approach of the menses. A tea spoonful of the tincture may be taken twice a day, in warm water, or any other convenient vehicle.

L. *Tinctura Myrrhæ.*

Tincture of Myrrh.

Take of myrrh, three ounces ; proof spirit, two pints. After due digestion, strain off the tincture.

E. Take of myrrh, an ounce and a half ; proof spirit, a pint. Digest them together in a sand heat for ten days ; then strain off the tincture.

Rectified spirit extracts, without any addition, all that part of the myrrh, in which its peculiar smell and taste reside, viz. the resin ; and proof spirit dissolves almost the whole of the drug except its impurities.

Tincture of myrrh is recommended internally for attenuating viscid juices, strengthening the solids, opening obstructions, particularly those of the uterine vessels, and resisting putrefaction. Boerhaave greatly esteems it in all languid cases, proceeding from simple inactivity ; in those female disorders which are occasioned by an aqueous, mucous, sluggish indispotion of the humours, and a relaxation of the vessels ; in the fluor albus, and all diseases arising from a like cause. The dose is from fifteen drops to forty or more.

Tinctura Myrrhæ et Aloes.

Tincture of Myrrh and Aloes.

Take of myrrh, in powder, one ounce and a half : hepatic aloes, one ounce ; proof spirit, two pints. Digest in a sand heat for six days ; and strain.

This is designed for surgical dressings.

L. & E. *Tinctura Rhabarbari Spirituosa.*

Spirituos Tincture of Rhubarb.

Take of rhubarb, two ounces ; lesser cardamom seeds, husked, half an ounce ; saffron, two drachms ; proof spirit, two pints. Digest without heat, and strain off the tincture for use.

E. D. *Tinctura Rhei Amara.*

Bitter Tincture of Rhubarb.

Take of rhubarb, one ounce ; gentian root, two drachms ; Virginian snake-root, one drachm ; proof

proof spirit, one pint. Digest for seven days, and then strain the tincture. This tincture may likewise be made with mountain wine.

E. D. *Tincture Rhei dulcis.*

Sweet Tincture of Rhubarb.

Take of rhubarb, three ounces; lesser cardamoms, half an ounce; French brandy, two pints. Digest for seven days, and then having strained out the tincture, add to it four ounces of white sugar candy in powder, and digest again until the sugar is dissolved. N. B. Without the sugar, it is the tincture of rhubarb of the present dispensatory.

The tinctures are designed rather as stomachics and corroborants, than as purgatives: in weakness of the stomach, indigestion, laxity of the intestines, diarrhoeas, colicky, and other like complaints, these medicines are frequently of good service.

L. D. *Tinctura Senæ.*

Tincture of Sena.

Take of raisins, stoned, sixteen ounces; sena, one pound; caraway seeds, one ounce and a half; lesser cardamoms, husked, half an ounce; proof spirit, one gallon. Digest without heat, and then strain the tincture.

Compound Tincture of Sena.

E. D. Or, *Elixir Salutis.*

Elixir of Health.

Take of sena, two ounces; jalap powdered, one ounce; coriander seeds, half an ounce; proof spirit, three pints. Digest for the space of seven days; then strain off the tincture, and add to it four ounces of powdered sugar candy.

Both these tinctures are useful carminatives and cathartics, espe-

cially to those who have accustomed themselves to the use of spirituous liquors; they oftentimes relieve flatulent and colicky complaints, where the common cordials have little effect. Several preparations of this kind have been offered to the public, under the name of Daffy's elixir; the two above are equal to any, and superior to most of them.

L. *Tinctura Serpentariæ.*

Tincture of Snake-root.

Take of Virginian snake-root, three ounces; proof spirit, two pints. Digest without heat, and strain off the tincture. This tincture may be taken to half an ounce or more.

E. D. *Tinctura Serpentariæ.*

Tincture of Snake-root.

Take of Virginian snake-root, two ounces; cochineal, one drachm; proof spirit, two pints. Digest in a gentle heat for four days, and strain.

L. *Tinctura Stomachica.*

Stomachic Tincture.

Take of raisins, stoned, four ounces; cinnamon, half an ounce; caraway seeds, lesser cardamoms, husked, cochineal, each two drachms; proof spirit, two pints. Digest without heat, and strain off the tincture.

This is a moderately warm stomachic tincture; it may be taken without any vehicle, in the quantity of half an ounce or an ounce.

L. *Tinctura Styptica.*

Styptic Tincture.

Take of green vitriol, calcined, one drachm; French brandy (such as has acquired a yellowish tinge from the cask) two pints. Mix them

them together, that the spirit may grow black; then pass it through a strainer.

Any spirit that has gained an impregnation from the oak casks, which these liquors are generally kept in, or from other vegetable astringents, will equally exhibit this phenomenon; and French brandy will not do it, without such assistance. The celebrated styptic of Helvetius (which is said to be the same with that of Eaton,) differs from it no otherwise, than in being more operose in composition. They are recommended both for internal use, and for restraining external hemorrhages: their virtues depend not so much on the iron, as on the menstruum.

- *Tinctura Sudorifica.*

Sudorific Tincture.

Take of Virginian snake-root, six drachms; cochineal, English saffron, each two drachms; opium, one scruple; spirit of Mindererus, one pint. Digest them together in a gentle heat for three days, and then strain the tincture.

This is a very efficacious medicine for the purpose expressed in its title. Half an ounce of the tincture, by measure, contains five eighths of a grain of opium.

L. *Tinctura Antimonii.*

Tincture of Antimony.

Take of any fixed alkaline salt, one pound; antimony, half a pound; rectified spirit of wine, two pints. Reduce the antimony into powder, mix it with the salt, and melt them together, with a strong fire, for an hour. Then pour out the matter, pulverize it, add the spirit, and digest them for three or four days: after which strain off the tincture for use.

In this process, the alkaline salt unites with the sulphur of the antimony, into a hepar. This tincture is supposed to contain some of the reguline parts, and said to have sometimes vomited, when taken even in a small dose. It stands recommended, in doses from ten to sixty drops or more, as a deobstruent, promoter of urine, and purifier of the blood.

Tinctura Tolutana.

Tincture of Balsam of Tolu.

Take of balsam of Tolu, an ounce and ah half; rectified spirit of wine, a pint. Digest in a sand heat until the balsam is dissolved; then strain the tincture.

This solution of balsam of Tolu possesses all the virtues of the balsam itself. It may be taken internally against rheumatic pains, seminal and other weaknesses, in the dose of a tea-spoonful or two, in any convenient vehicle. Mixed with the plain syrup of sugar, it forms an elegant balsamic syrup.

L. *Tinctura Valerianæ simplex.*

Simple Tincture of Valerian.

Take of wild valerian root, four ounces; proof spirit, two pints. After due digestion, strain off the tincture.

The root ought to be reduced into fine powder, otherwise the spirit will not sufficiently extract its virtues. The tincture proves of a deep colour, and considerably strong of the valerian; though it has not been found to answer so well in the cure of epileptic disorders, as the root in substance. The dose of the tincture is from half a spoonful to one or two spoonfuls.

L. & E. *Tinctura Valerianæ volatilis.*

Volatile Tincture of Valerian.

Take of wild valerian root, four ounces; volatile aromatic spirit, two pints. Digest, without heat, in a vessel closely stoppt, and afterwards strain off the tincture.

The volatile spirit is here an excellent menstruum, and, at the same time, considerably promotes the virtues of the valerian. The dose may be a tea spoonful or two.

Tinctura Valerianæ volatilis.

Volatile Tincture of Valerian.

Take of wild valerian root two ounces, vinous spirit of sal ammoniac a pint. Macerate six days in a close phial, and strain.

L. *Tinctura Veratri.*

Tincture of Veratrum,
or white Hellebore.

Take of white hellebore root, eight ounces; proof spirit, two pints: digest them together, and filter the tincture through paper.

This tincture is sometimes used as an emetic, in apoplectic and maniacal disorders. It may likewise be so managed, as to prove a powerful alterative and deobstruent, in cases where milder remedies have little effect. But a great deal of caution is requisite in its use: the dose, at first, ought to be only a few drops; if considerable, it proves violently emetic or cathartic.

E. D. *Tinctura Veratri sive Hellebori Albi.*

Take white hellebore root eight ounces, rectified spirit of wine two pounds, digest ten days, then filter through paper.

E. D. *Elixir Guaiacinum Volatile.*
Volatile Elixir of Guaiacum.

Take of guaiacum, four ounces; balsam of Peru, two drachms; essential oil of sassafras, half a drachm; vinous spirit of sal ammoniac, one pint; macerate the spirit with the gum and balsam, in a close vessel for six days; then strain out the tincture, and add to it the distilled oil.

This composition is of great efficacy, it warms and strengthens the habit, and promotes the perspiration; and hence becomes serviceable in rheumatic, scorbutic, and serophulous disorders, particularly where the patient is of a phlegmatic temperament; as also in gleets, and in other ill consequences of a weak relaxed state of the solids. Twenty or thirty drops may be taken two or three times a day, or oftener, in any proper vehicle.

Balsamum Commendatoris.

Baume de Commandeur.

Take of dry Peruvian balsam, one ounce; storax, in the tear, two ounces; Benjamin, three ounces; Succotrine aloes, myrrh, olibanum, angelica roots, St. John's-wort flowers, each half an ounce; spirit of wine, two pounds eight ounces, by weight. Let them stand together in the sun, during the dog-days, in a glass vessel, closely stoppt; and afterwards strain out the balsam through a linen cloth.

This balsam has been kept a secret, in private hands, under the titles of *Balsamum Persicum*, balsam of Berne, Wade's balsam, Friar's balsam, Jesuit's drops, &c. The form above is taken from the original receipt, published by Pomet
(His-

(*Histoire des Drogues*, edit. 2. ii. 36.)

It stands greatly recommended externally, for cleansing and healing wounds, and ulcers even of the cancerous kind, for discussing cold tumours, allaying gouty, rheumatic, and other cold pains and aches; and, likewise internally, for warming and strengthening the stomach and intestines, expelling flatulencies, and relieving colicky complaints. Outwardly, it is applied cold on the part with a feather; inwardly, a few drops are taken at a time in wine, or any other convenient vehicle.

L. *Balsamum Traumaticum.*

Traumatic, or Vulnerary Balsam.

Take of benzoine, three ounces; storax, strained, two ounces; balsam of Tolu, one ounce; Succotrine aloes, half an ounce; rectified spirit of wine, two pints: digest, that the gums may, as much as possible, be dissolved; and then strain off the balsam for use.

This is an elegant reform of the preceding composition, considerably more simple, yet not inferior in efficacy.

E. *Balsamum, sive Elixir Traumaticum.*

Take of benzoine, powdered, three ounces; balsam of Peru, two ounces; hepatic aloes, in powder, half an ounce; rectified spirit of wine, two pints. Digest them in a sand heat for ten days; and then strain the balsam.

This is a farther contraction of the baume de commandeur, without any injury to it as a medicine.

L. *Elixir Aloes.*

Elixir of Aloes.

Take of tincture of myrrh, two pints; Succotrine aloes, saffron,

each three ounces. Digest them together, and strain off the tincture.

Elixir Aloes, vulgo Proprietatis.

Take of tincture of myrrh two pounds; English saffron, two ounces; Succotrine aloes three ounces. Digest eight days, then let them stand till the fæces subside, after which the clear elixir may be poured off.

This is the *elixir proprietatis* of Paracelsus, improved with regard to the manner of preparation. The myrrh, saffron, and aloes, have been usually directed to be digested in the spirit together; by this method, the menstruum soon loads itself with the latter, so as scarce to take up any of the myrrh, whilst a tincture, extracted first from the myrrh, readily dissolves a large quantity of the others.

This medicine is greatly recommended, and not undeservedly, as a warm stimulant and aperient. It strengthens the stomach and other viscera, cleanses the first passages from tenacious phlegm, opens obstructions in the remoter vessels, and promotes all the natural secretions. Its continued use has frequently done good service in cachectic and icteric cases, uterine obstructions, and other like disorders; particularly in cold, pale, phlegmatic habits. The dose may be from twenty drops to a tea spoonful, two or three times a day.

E. *Elixir ex Aloe et Rheo, vulgo Sacrum.*

Elixir of Aloes with Rhubarb, called Elixir Sacrum.

Take of rhubarb two drachms; Succotrine aloes six drachms; lesser cardamom seeds; half an ounce; proof spirit, two pints. Digest seven days and strain.

E. *Elixir*

E. *Elixir Aloes, five Proprietatis Vitriolicum.*

Take of myrrh, in powder, Succotrine aloes, in powder, of each an ounce and half; English saffron, an ounce; dulcified spirit of vitriol, a pint. Digest the myrrh with the spirit in a close vessel, four days; then add the aloes and saffron, and digest for four days more; after which let the fæces subside, then strain off the clear elixir.

Here the dulcified spirit of vitriol is very judiciously substituted to the spirit of sulphur, ordered in other books of pharmacy to be added to the foregoing preparation; for that strong acid precipitates from the liquor great part of what it had before taken up from the other ingredients. This elixir possesses the general virtues of the preceding, and is preferred to it in hot constitutions, and where the juices tend to a putrescent state.

E. *Elixir Guaiacinum.*
Elixir of Guaiacum.

Take of gum guaiacum a pound; balsam of Peru three drachms; rectified spirit of wine, two pounds and a half: digest ten days and strain.

L. *Elixir Paregoricum.*
Paregoric Elixir.

Take of flowers of benzoine, opium strained, each one drachm; camphor, two scruples; essential oil of aniseeds, half a drachm; rectified spirit of wine, two pints: Digest and strain.

E. D. *Elixir Paregoricum.*
Paregoric Elixir.

Take of flowers of benzoine, English saffron, each three drachms; crude opium, two drachms;

essential oil of aniseed half a drachm; volatile aromatic spirit, one pint: digest for four days in a well stopped bottle, and shake it frequently: add to the strained liquor half a drachm of oil of aniseed. Shake it well.

This elixir was originally prescribed under the title of *elixir asthmaticum*, none of the officinal compositions being equal to it in that intention. It excellently allays the tickling, which provokes frequent coughing; and yet at the same time opens the breast, and gives greater liberty of breathing: the opium procures a temporary relief from the symptoms, whilst the other ingredients tend to remove the cause, and prevent their return. It is given to children against the chin-cough, &c. from five drops to twenty; to adults, from twenty to a hundred. Half an ounce, by measure, contains about a grain of opium.

Elixir Pectorale.
Pectoral Elixir.

Take of balsam of Tolu, two ounces; of Peru, one ounce; benzoine, an ounce and a half; English saffron, half an ounce; rectified spirit of wine, two pints: digest them in a sand heat for three days, and then strain off the elixir.

L. *Elixir Vitrioli Acidum.*
Acid Elixir of Vitriol.

Take of the aromatic tincture, one pint; strong spirit (called oil) of vitriol, four ounces: mix them together, and after the fæces have subsided, filter the elixir through paper.

This preparation is altered from Mynsicht; the oil of vitriol, and
F f spirit

spirit of wine, being by him first mixed together, and then digested upon aromatics: when thus managed, the acid disables the spirit from extracting the virtues of the aromatics; and indeed, when added to the tincture, as here ordered, it precipitates great part of what the spirit had before taken up.

Mynsicht's elixir of vitriol is directed in our preceding Pharmacopœia, as follows: take of cinnamon; ginger, cloves, each three drachms; *calamus aromaticus*, one ounce; galangal, an ounce and a half; sage, mint, each half an ounce; cubebs, nutmegs, each two drachms; aloes wood, citron peel, each one drachm. Reduce these ingredients into a powder, to which add, of sugar-candy, three ounces; spirit of wine, a pint and a half; oil of vitriol, one pint. Digest them together for twenty days, and then filter the tincture for use.

These medicines are greatly recommended in weakness of the stomach; and in most cases of this kind, where an acid does not already prevail, they have generally good effects. Sometimes they have proved serviceable after bitters had availed nothing, especially in great relaxations from debauches and over-feeding.

L. *Elixir Vitrioli dulce.*

Sweet Elixir of Vitriol.

Take of the aromatic tincture, one pint; dulcified spirit of vitriol, eight ounces, by weight. Mix them together.

This is designed for persons whose stomach is too weak to bear the foregoing acid elixir.

E. D. *Elixir Vitrioli.*

Elixir of Vitriol.

Take of rectified spirit of wine,

two pints; drop into it, by degrees, six ounces of oil of vitriol: digest in the gentlest sand heat for three days; then add an ounce and a half of cinnamon; one ounce of ginger; dried leaves of peppermint, half an ounce. Digest again, for three days, in the same heat, and filter the elixir through a glass funnel. This is similar to the preceding.

E. D. *Elixir Vitrioli dulce.*

Sweet Elixir of Vitriol.

It is made of the same aromatics, and in the same manner as the aromatic tincture, except that instead of spirit of wine, the sweet spirit of vitriol is added.

L. D. *Elixir Myrrhæ compositum.*

Compound Elixir of Myrrh.

Take of extract of saffron, one ounce; tincture of castor, one pint; tincture of myrrh, half a pint. Digest them together, and then strain the elixir.

This preparation is improved from one described in former editions of this work, under the name of *Elixir Uterinum*. It is a medicine of great efficacy in all uterine obstructions, and in hypochondriacal cases, promotes the menses, the expulsion of the *fœtus*, and the *lochia*. It may be given from five drops to twenty or thirty, or more, in penny-royal water, or any other suitable vehicle.

E. D. *Elixir Sacrum.*

Take of Succotrine aloes, in powder, six drachms; choice rhubarb, cut small, ten drachms; lesser cardamom seeds, half an ounce; French brandy, two pints: digest for seven days, and strain the elixir.

E. D.

E. D. *Spiritus Vini camphoratus.*

Camphorated Spirit of Wine.

Take of camphor, one ounce ;
of rectified spirit of wine, one pint.
This is chiefly intended for strains.

Essentia Odorifera.

Odoriferous Essence.

Take of musk, ten grains ; civet,
five grains ; balsam of Peru, twelve
drops ; oil of cloves, four drops ;
oil of rhodium, two drops ; salt of
tartar, half a drachm ; rectified
spirit of wine, two ounces. Digest
them together in a close vessel,
with a heat equal to that of the sun
in summer for several days ; and
afterwards pour off the essence for
use.

This is likewise a very high per-
fume ; a single drop of it gives a
fine flavour to many ounces of
other liquors.

Eau de Luce.

Take the highest rectified spirit
of wine, two pounds ; the oil of
amber once rectified, one ounce ;
let them stand together some days,
often shaking them. Then decant
off the spirit from the oil which
remains undissolved, and add to it
four ounces of the volatile salt of
sal ammoniac dissolved in a pint of
water. If on mixture, the oil of
amber appears to separate from the
spirit, which will be seen by a
white cloudiness ; add highly rec-
tified spirit of wine to it gradually,
till the whole becomes clear ; and
if the volatile salt separates, let it
settle, and then pour off the clear
liquor.

Various are the modes of pre-
paring this fluid, according to the
different intentions of the prescri-
ber ; some requiring a clear, and
others a turbid appearance ; some

only a volatile pungent, and others,
besides its pungency, aim at an
agreeably flavoured liquor. When
its only used in sinelling-bottles, a
beautiful blue colour is given to it
by a drop or two of a solution of
copper.

The following is preferred by
some.

Take of gum olibanum, and gum
massich, of each one drachm ; the
oils of lavender, two drachms ;
oil of rosemary, one drachm ;
alcohol of wine, six ounces ; mix
and digest them for some days.

Then take of spirit of sal am-
moniac, made with quick lime, any
quantity ; to which add of the
above tincture, enough to give it
the required colour and consistence :
mix, by shaking them well toge-
ther.

L. *Spiritus Vinosus Camphoratus.*

Camphorated Spirit of Wine.

Take of camphor, two ounces ;
rectified spirit of wine, two pints :
mix them that the camphor may
be dissolved.

E. D. General rules for extracting
Tinctures.

I. The several vegetable sub-
stances ought to be moderately
dried, but not long kept, unless
where they are expressly directed
otherwise. They ought likewise
to be cut and bruised before the
menstruum is put to them.

II. If the digestion is performed
in balneo, the success of the opera-
tion depends entirely on the pro-
per management of the heat, which
ought to be gentle the whole time ;
except where the more tenacious
texture of the subject requires that
it should be augmented ; in which

case it may be increased, so as to make the menstruum boil a little towards the end of the process.

III. Very large circulatory vessels ought to be employed for this purpose, which should be made warm before they are luted together.

IV. The vessel must be frequently shaken during the digestion.

V. All tinctures should be suffered to deposit their fæces before they are either strained or filtered, as in the tinctures (and likewise distilled spirits) designed for internal use; no spirit drawn from malt, melasses, or any other fermentable matter, is to be used besides that expressly prescribed.

From the former London Dispensatory, and others.

Vinum Scilliticum. Wine of Squills.

Take white squills dried, one pound; infuse them in eight pounds of white wine fourteen days, and then strain out the squills and keep the wine for use.

This is as gentle an emetic as the vinegar of squills, but it is more agreeable to cold weak stomachs. After some time using this medicine it will not vomit, but irritate, just enough to squeeze out some slimy water from the glands, and thereby greatly contribute to render them ready in the discharge of their proper offices; insomuch that there is hardly any one medicine that better guards against those inundations of rheums which drown old age, or are the consequences of decays from frequent debauches, than this does. From one to four spoonfuls may be taken every morning.

Tinctura Theriacalis. The Alexipharmic Tincture.

Take of French brandy and the best vinegar, of each two pounds, of Venice treacle and Mithridate, of each half a pound; digest them in a gentle heat, and strain out the tincture for use.

This is out of use, but it is so good a medicine, and in so convenient a form for such as cannot take boles or electaries, that it was thought worth recommending here. It has all the virtues of the treacle; and by the help of the vinegar will sometimes procure a diaphoresis, where that fails. In short, it is an excellent alexipharmic. It may be given from two drachms to two or three ounces, with any convenient vehicle, or by itself. This may also be enticed down with many children, who cannot be prevailed upon with any other form; they may take from one drachm to half an ounce. In fevers, if no other medicines of the same intention are used, it ought to be repeated every four or six hours; according to the exigency of the case, till a sweat rises.

Tinctura Asthmatica. Tincture for an Asthma.

Take roots of elecampane, Florentine orris, seeds of anise, caraway, liquorice, of each two ounces, leaves of carduus, carduus ben. two handfuls; raisins stoned, one pound; sena, six ounces; aniseed water, six pounds. Let them all digest four days; then strain the liquor, and keep it for use. This is from Bates.

The carduus here nauseates the medicine, and contributes but little to its efficacy; and therefore is better

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better left out. This may be taken two or three spoonfuls going to bed, and as much next morning, according to the strength of the patient; and if it be long continued in corpulent habits, it is said to do much good.

Tinctura Paralytica.

Tincture against the Palsy.

Take Spanish flies in powder, two ounces; seeds of bishop's-weed, six drachms; spirit of wine rectified, one pound and a half. Let them digest together for some days in a sand-heat, and then decant or filter the clear liquor from the ingredients.

This is designed for embrocations in numbness, and for paralytic limbs: in which cases it is a notable stimulus; and if possible will rouse and stir the almost insensible and stupified fibres, and occasion a proper derivation of their fluids. If much rubbed into the part, it is sharp enough to excoriate.

Elixir Camphoratum.

Elixir of Camphor.

Take camphor, half an ounce; dissolve it in tincture of saffron, that has been made with spirit of wine rectified, six ounces; and keep it close stopp'd for use.

The virtues of this are plain from its ingredients, so fully described already. It makes a notable alexipharmic; and stands conveniently in readiness to be prescribed in any liquid form.

Elixir Proprietatis dulce.

Take myrrh, aloes, and saffron, of each one ounce; spirit of wine rectified, eight ounces; digest them together in a gentle sand-heat for some days; then pour off what is clear for use.

The same method ought to be observed in this, as was before directed in that of the college; else the virtues of all the ingredients will not be so well obtained. It is good in all the disorders of the stomach, as the foregoing; but gives not that firmness to relaxed fibres; although it is rather a greater cleanser of the first passages, and better agrees with some tender constitutions, where acids draw and pull the fibres too much, so as to occasion griping and colic pains.

Elixir Proprietatis Tartarizatum.

Take myrrh, aloes, and saffron, of each one ounce; tincture of salt of tartar, twelve ounces. Digest them together for some days, then decant what is clear, and keep it close stopp'd.

This is not a better stomachic medicine than any of the foregoing; but more opening, not only of the first passages, but of all the viscera, and particularly promotes the discharge by urine. Where therefore those intentions are most in view, this is the best to prescribe. In obstructions of the menses, likewise, this is the best preparation. This requires likewise the same caution in making as the former.

Elixir Vitæ. Elixir of Life.

Take nutmegs, mace, cinnamon, of each one ounce; cloves, half an ounce; the outer rinds of oranges and citrons, of each three drachms; saffron, two ounces. Digest all together, upon a sand-heat, in three pounds of rectified spirit of wine for some days; and pour off the clear for use.

This is a very good composition of cordial and cephalic simples,

is easily made, and kept in the shops, and very readily mixed with any liquid forms for extemporaneous practices. It may be given from forty drops to two drachms in any convenient vehicle. This may be distilled with a retort, and what comes over, entitled, compound spirit of saffron; and an extract be made of the residuum, called the compound extract of saffron; and both will be excellent good medicines in the above mentioned purposes.

Tinctura Stomachica Amara.
The bitter Stomachic Tincture.

Take gentian root and orange peels dried, both cut very small, of each one pound; pour upon them in a glass body spirit of wine rectified, one gallon and a half. Let them stand close covered in a very mild warmth for some days; then press out the spirit strongly; and let it fine down for use.

The peels must be of the most fragrant Seville oranges, cleared of the white, and carefully dried. This makes a tincture not to be known from several which are so extravagantly cried up in empirical advertisements, and is the best that can be made. To this, centaury, and many things of the like kind, might be added; but they would rather clog the medicine, than increase its virtues. This is very conveniently kept in the shops to make the bitter draught *extempore*, with any kind of wine or other vehicle. From fifteen to sixty drops is sufficient for a dose of two or three ounces. It is also very conveniently added to steel wine; as bitters are often joined with it. It has all the virtues of the common bitters, and warms and strengthens the stomach; but answers that

end much better when joined with a little acid; which makes a sub-astringent of it, not much unlike the *elixir vitrioli*: one ounce of *spiritus sulphuris per campanum*, would be enough for a pint of this tincture, and make it of a more beautiful colour, and pleasanter to take.

Tinctura Martis Mynsichti.
Mynsicht's Tincture of Steel.

Take sal ammoniac, two pugils; filings of steel, one pugil; mix them together, and put them into a retort; give a gentle fire at first in a sand heat, and by degrees raise it, until some flowers are come over. Wash the residuum with warm water till the *sal ammoniac* is not discernible; then put it into a cucurbit, and with spirit of wine extract a tincture; which decant, and put on more, until it will tinge no longer: then evaporate about half the spirit: and keep the rest for use: the dose may be from ten to forty drops.

Tinctura Regine.
The Royal Tincture.

Take musk half a scruple; civet, five grains; balsam of Peru, twelve drops; oil of cloves, four drops; of rhodium, two drops; drop these upon half a drachm of salt of tartar, and mix them well together; then pour upon the mass, rectified spirit of wine, two ounces; and let them stand in a heat equal to that of the sun, in a close vessel, many days; and afterwards pour off the clear spirit by decantation.

This is fit only to be kept in readiness to flavour any cordial dram, where such things are proper and required; and is as good for this purpose as can well be contrived; the least drop is sufficient

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sufficient for many ounces of liquor.
'This is a preparation of Le Mort.

Tinctura Rosæ Solis. Tincture of Sun Dew.

Take of the *ros solis*, or sun dew, four handfuls; cinnamon, nutmegs, mace, cloves, ginger, of each an ounce; musk, four grains; spirit of wine, one cong. Digest all together twenty days, and then dissolve in the strained tincture, of loaf sugar, one pound; and put it up in a close vessel for use.

This is a warm high cordial, and a good cephalic, especially in cold constitutions.

Elixir Asthmaticum.

Elixir against Asthmas.

Take honey and liquorice root, of each four ounces; flowers of Benjamin and opium, of each one drachm; camphor, two scruples; oil of aniseed, half a drachm; salt of tartar, one ounce; spirit of wine rectified two pounds. Digest all together for some weeks, shaking the vessel often; then strain and filter for use.

This is directed by Le Mort; the *elixir pægoricum* is an elegant reform of this.

Elixir Antivenereum.

An Elixir against the Pox.

Take bals. capivi, one ounce; gum guaiacum two drachms; oil ofassafras half a drachm; rectified spirit of wine five ounces. Digest together, with some small mixture of salt of tartar, for two or

three days; and pour off what is fine for use.

This is also from Le Mort. It has been greatly extolled as an antivenereal, but certainly ought not to be used while any infection remains, afterwards it may be useful.

Elixir Hypochondriacum.

An Elixir against Melancholy.

Take roots of valerian and cas-samunair, of each two ounces; black hellebore, four ounces. Digest for twenty-four days in two pounds of spirit of wine rectified; then strain and press it out hard, and to it put extract of saffron, one ounce; salt of steel, half an ounce; with distilled vinegar, eight ounces. Digest these for some days together in a close vessel, and then pour off, and filter for use.

This is a most efficacious medicine in all melancholy hypochondriacal affections in either sex. And there is hardly a case so obstinate as to resist it; if it be long continued. It keeps the body a little laxative, and opens by urine; and will in time scour the glands and most remote recesses of the body, of those adhesive slimy humours, which spoil the motions of the spirits, and lay a load upon the principal wheels of the animal machine; from whence arise those perturbations of mind, and interruptions of reasoning, as put a person into a state little better than that of distraction. It may be given from ten to forty drops in any convenient vehicle.

S E C T. V.

Of Conserves, Sugars, &c.

THOSE things which are preserved in substance by boiling in sugar, and said to be candied, are now become entirely foreign to the apothecary's business, being wholly managed by the confectioner; and the medicated sugars under the next division, are also fallen into the same hands; and most, or all of them, are so rarely used in medicine, that an enquiry about them seems needless. The *saccharum tabulatum compositum*, and the *confectio de thure*, are so little esteemed in any respect, they are never to be met with ready made.

The conserves make a considerable article in the furniture of an apothecary's shop; but although they are now much abridged by the college, they have yet retained more than are ever prescribed or made; for reasons already taken notice of, *viz.* either from their nauseousness or unsuitness for this form. Of those things which require to be gently boiled, are only the flos and barberries, because without it their pulps are so thin as not to afford a due consistence with sugar; but much boiling is here to be avoided, for the reasons before given concerning the acid syrups. All the other conserves require nothing more than barely beating them in a mortar to a sufficient fineness; but the labour required to do this makes most of them, at best, so coarse, that they ought to be pulped before they are reduced into electaries; their apt-

ness to candy likewise subjects them to the same necessity; the peculiar method of doing which will come more properly to be shewn in the direction about extemporaneous electaries.

There is a very considerable oversight in the list of simples reducible into conserves, as it is printed in the last Dispensatory, both in relation to the method in which they stand, and the distinctions of the things themselves; which it may be necessary to take some notice of here, to prevent being led into mistakes thereby. The distinctions of *Summitates*, *Flores*, *Folia*, and *Fruetus*, are not only intermixed, and consequently repeated oftener than a good method requires, but also things are placed under these distinctions which do not belong to them. This under *Summitates*, are lavender and lilies of the valley, the fine picked flowers only of which are used in conserve. Under the *Folia* likewise are violets, which are used only in flower; and elder, the leaves of which were never yet made into conserve: the flos and barberries which stand here, belong to the distinction of fruits, and should be placed with the hips. There are other inconveniencies not of such consequence, and which every reader can easily rectify.

This form of medicine is contrived to preserve the flowers, herbs, roots, peels, or fruits of several simples, as near as possible to what they are when fresh gathered:

ed : but for this purpose there is so much sugar made use of, that a dose of the simple, to answer any intention of moment, is rendered very inconvenient to take. All the things which therefore come under this division are to be regarded pretty much as syrups ; more for the sake of mixing and rendering palatable other things of great efficacy, than to answer any intention of cure themselves. For what can be expected from a dose of the most efficacious conserve that is made in the shops (suppose one ounce, which is three fourths sugar), when the herb of which it is made, might be eat by handfuls, or as common salleting, without any manifest alteration ? In this form more or less sugar is used, according to the texture and disposition of the simple concerned. Thus to herbs, and flowers, there are put three parts of sugar to one of the simple ; for roots, and such substances as will keep better, double the quantity of sugar will do ; and for some fruits and their pulps, yet less will serve. That part of this branch of pharmacy taken away by a distinct business, called Preserving, does not much differ from this, but in the manner of mixture.

Conservees are made by beating them in a marble mortar with three times their quantity of loaf sugar, till the particles of the simples are perfectly blended with the sugar. But according to the different succulency of their respective simples, they grow dry, or run as thin as syrup, with keeping ; and turn sour and ferment ; in both of which cases they ought to be put by as unfit for use, and good for nothing but to add to any fermenting liquor for distillation.

Conservees of the peels of oranges, citrons, lemons, and the like, are only made with double their quantity of sugar, because their warmth helps to keep them. They require great labour to make them very fine ; if therefore the chips, as they are shaved thin off the orange, &c. are put into an earthen pan for some weeks, with a sufficient quantity of sugar ; they will mellow, or as it were so rot together, that it will require much less trouble to reduce them into a good conserve.

The conservees of any medicinal simple, that is not usually kept ready made, may be made at any time when required, according to some of the foregoing methods, with a proportion of sugar suitable to its texture and disposition of parts.

L. Conserva foliorum Cochleariæ hortenſis.

Conserve of the leaves of garden Scurvygrafs.

This is the only form that scurvygrafs in substance can be kept in, without the total loss of its virtues. The conserve retains the taste and virtue of the herb for a considerable time : it is taken in scorbutic habits, three or four times a day or oftener.

L. Conserva foliorum Lujulæ.

Conserve of the Leaves of Wood-sorrel.

This is a very grateful conserve : in taste it is lightly acid. It is taken occasionally, for quenching thirst, and cooling the mouth and fauces in hot distempers.

L. Conserva foliorum Menthæ vulgaris.

Conserve of the Leaves of Spear-mint.

The conserve of mint retains

L. E. *Conserva Prunorum Sylvestrium.*

Conserve of Sloes.

Let the sloes be put into water, and set over the fire till they grow soft, with care that they do not burst. Then take the sloes out of the water, press out their pulp, and mix it with thrice its weight of double refined sugar.

This preparation is a gentle astringent, and may be given as such in the dose of four or five drachms. The degree of its astringency will vary according to the maturity of the sloes, and the length of time that the conserve has been kept.

L. D. *Radix Eryngii condita.*

Preserved Eryngo-Root.

Boil the roots till the rind can be easily peeled off; then having freed them from it, let the roots be cut down the middle, and the pith being taken out, let them be washed three or four times in cold water; afterwards for each pound of the roots take two pounds of the finest sugar, which place over the fire to melt; and upon the first appearance of boiling, throw in the roots, and boil them till they become tender.

In the same manner angelica-root may be candied.

L. D. *Cortex Aurantiorum conditus.*

Preserved Orange-peel.

Steep fresh orange-peels in water, which must be often changed, till they lose their bitterness; then boil them in the finest sugar dissolved in water, till they become tender and transparent.

In the same manner lemon-peels may be preserved.

Those who chuse to have the preserved peels retain their bitter-

ness, in which all their medicinal virtue consists, must omit the steeping them in water; but these, and all the common preserves, are best prepared by the confectioners, whose proper business it is to make them.

Preserves, Conservees and Sugars of the former Edinburgh Dispensatory.

Radix Angelicæ condita.

Candied Angelica.

Slice any quantity of fresh Angelica roots, and throwing away the pith; steep the ligneous part, in several renewed quantities of water two days, afterwards boil them a little, then pour off the water, and put to the roots as much syrup of sugar as will cover them to the height of two inches; after a day or two they may be again boiled gently, if there should be occasion, that the superfluous moisture may be evaporated, and the syrup become of a due consistence.

In the same manner may be candied,

Radices Eryngii, Roots of Eryngo.—*Helenii*, Elecampane.—*Satyræ*, Satyrion.—*Cortices Aurantiorum*, the Peel of Oranges,—*Limonium* Lemons.

Nutmeg, citron and ginger are brought to us from India ready candied. All sorts of fruits, flowers, and seeds, may likewise be preserved either by adding syrup, or by crusting them over with sugar, but this rather belongs to the business of a confectioner than an apothecary.

Mars Saccharatus.

Sugared Steel.

Put any quantity of clean filings

or

of iron into a brass kettle, suspended over a very gentle fire. Add to them, by little and little, twice their weight of white sugar, boiled to the consistence of candy; add one drachm of powder of starch for every pound of sugar; agitating the kettle continually, that the filings may be crufted over with the sugar, and taking great care to prevent their running into lumps.

This is a very agreeable preparation of steel.

Tabellæ Diatragacanthi.

Lozenges of Gum Tragacanth.

Take of white sugar one pound; rose water, four ounces; which dissolve over a slow fire: then add of the compound powder of gum tragacanth, three ounces; and having poured the mixture upon a marble, make it into lozenges.

Saccharum Tabulatum simplex & Perlatum.

Simple and Pearl Lozenge Sugar.

The first is made by pouring sugar, which hath been sufficiently boiled with half its quantity of damask-rose-water, upon a marble; and the latter by adding to every pound of the former, towards the end of its boiling, half an ounce of prepared and levigated pearl, with eight or ten leaves of gold.

If good care is not taken to boil this to a just consistence, it will be either too brittle to flow upon the stone sufficiently for its being cut into tablets; or too soft to preserve its form when so managed. But this is also a branch of pharmacy now principally left to the confectioner.

Saccharum Tabulatum compositum.

Compound Lozenge Sugar.

Take of fine rhubarb, four scruples; of the troches of agaric, of coralline, burnt hartshorn, of the leaves of Cretan dittany, of wormseed, of the seeds of purslain and sorrel, of each one scruple; of cinnamon, zedoary, cloves, and saffron, of each half a scruple; of the finest powdered sugar, one pound; let the sugar be dissolved in five ounces of simple wormwood-water, and one spoonful of strong cinnamon-water; and the fore mentioned species be mixed with it so as to make it into tablets, *f. a.*

Saccharum Hordeatum.

Barley Sugar.

It is made from sugar boiled over a slow fire in a decoction of barley, briskly beat up with the whites of eggs, and frequently scummed while upon the fire; it is then to be strained through a flannel, and again set upon the fire, where it must boil slowly till it rises in large bubbles; and upon trial found not to stick to the teeth. It is to be poured upon a marble stone, rubbed over with oil of almonds, as soon as the bubbles subside; and its extremities, as it runs out, turned back again, till it grows of the consistence of a thick turpentine; when it must be fastened to something, and nimbly drawn out by the hands, rubbed over with starch, into thin or thick, long or short threads at pleasure, and laid upon a plate provided on purpose, till it hardens into lozenges.

This also is now solely prepared by the confectioners, and is very rarely prescribed medicinally.

Sac-

Saccharum Rosatum Tabulatum.

Lozenge Sugar with Roses.

Take of red-rose leaves without the white heels, and hastily dried in the sun, one ounce; of the whitest sugar, one pound; melt the sugar over the fire in red-rose-water, and the juice of red-roses, of each two ounces; and after

due evaporation, mix with it the roses in fine powder; and pour it upon a marble so as to make it into lozenges, *f. a.*

This is also now made by the confectioners. Its colour is made more beautiful by adding a few drops of spirit of vitriol, before it cools.

S E C T. VI.

Of Electaries, &c.

THE next officinal form for internal use, is that of an electary; and it is much the most extensive of any, as it takes in almost the whole *materia medica*, in one intention or other; for though many simples have, from their texture, a natural unsuitness for some forms, yet there are hardly any which are not reducible, one way or other, into this; and the whole skill of the compounder consists in knowing that particular management which simples of different textures require to incorporate them thus together.

Besides what is common, then, to all compositions, the chief considerations in prescribing officinal electaries, are, that such things only be put together, which will not by any opposite qualities destroy one another, or lose their natural properties by lying long in this manner; and likewise that the whole be of a consistence, that will hold ingredients of different gravities in equal mixtures. Thus in all electaries, where the testaceous powders are ordered, or any thing of an alkaline nature, no acids, or any thing that will turn acid, ought to be mixed, be-

cause they will ferment; their weight likewise requires a thicker consistence than can be well given by a syrup, to hold them in suspension; and for offending in both these respects, the college formerly expunged the *confectio de hyacintho*, which consisted chiefly of testaceous and heavy ingredients, and was made up with syrup of lemons. Things which are most liable to grow worse in this form, chiefly affect the astringent compositions, because that roughness or asperity in which their astringency consists, by long lying in moisture, grows softer, and consequently less efficacious in any such intentions. This change is very manifest in comparing old *diascordium*, or conserve of red roses, with new.

The subjects of this form may be most of those medicinal simples which are proper to give in substance; and therefore it makes a great part of the officinal compositions. This form in the shops is a thicker consistence than that which is used in extemporaneous practice, for the convenience of keeping; otherwise the electaries are apt to ferment and spoil.

Gene-

General rules for making Electaries.

This composition is principally used in carminative clysters.

I. The rules already laid down for decoctions and powders in general, are likewise to be observed in making decoctions and powders for electaries.

II Gums, inspissated juices, and such other substances as are not pulverable, should be dissolved in the liquor prescribed; then add the powders by little and little, and keep the whole briskly stirring; so as to make an equable and uniform mixture. E.

III. Astringent electaries, and such as have pulps of fruits in their composition, should be prepared only in small quantities at a time, and the superfluous moisture of pulps should be evaporated over a gentle fire, before they are mixed with the ingredients. E.

IV. Electaries if they grow dry in keeping, are to be reduced to the due consistence, with the addition of a little Canary wine; and not with syrup or honey: by this means, the dose will be the least uncertain; a circumstance deserving particular regard, in those especially which are made up with syrup, and contain a large quantity of opium, as the *confectio paulina*, and *philonium*. L. E.

L. *Electarium e Baccis Lauri.*
Electary of Bay Berries.

Take of rue leaves dried, carraway seeds, parsley seeds, bay berries, each one ounce; fagapenum, half an ounce; black pepper, Russia castor, each two drachms; clarified honey, thrice the weight of the powdered species. Mix the species with the honey, and make them into an electary.

L. *Electarium e Cassia.*
Electary of Cassia.

Take of solutive syrup of roses, pulp of cassia, fresh extracted, each half a pound; manna, two ounces; pulp of tamarinds, one ounce. Grind the manna in a mortar, and with a gentle heat, dissolve it in the syrup; then add the pulps, and continue the heat until the whole is reduced to a due consistence.

E. *Electarium e Cassia, vulgo Diacassia.*

Take of pulp of cassia, six ounces; pulp of tamarinds, and Calabrian manna, of each one ounce and a half; syrup of pale roses, six ounces. Rub the manna in a mortar, then with a gentle heat dissolve it in the syrup; afterwards add the pulps, and continue the heat until it is reduced to a proper consistence.

These compositions are very convenient officinals, to serve as a basis for purgative electaries and other like purposes. They are likewise usefully taken by themselves, in the quantity of two or three drachms occasionally, for gently loosening the belly in costive habits.

L. *Electarium Lenitivum.*
Lenitive Electary.

Take of figs, one pound; sena, eight ounces; pulp of tamarinds, cassia, French prunes, each half a pound; coriander seeds, four ounces; liquorice, three ounces; double refined sugar, two pounds and a half. Pulverize the sena along with the coriander seeds, and sift

out ten ounces of the powder: the remainder is to be boiled with the figs and liquorice, in four pints of water, to one half; then strain and press out the liquor, and evaporate it to the weight of a pound and a half, or somewhat less: in this dissolve the sugar, so as to make it into a syrup, and add this syrup, by little and little to the pulps: lastly, mix in the powder before separated by the sieve.

E. D. Take of the leaves of fena, four ounces; of coriander seeds, two ounces; pulp of prunes, one pound. To the leaves and seeds in powder, add the pulps; and with syrup of damask roses, make an electary.

Electarium Pectorale.

Pectoral Electary.

Take of rob of elder two ounces; spermaceti (dissolved in the yolk of eggs), half an ounce; flowers of Benjamin, one drachm; syrup of balsam, enough to make the whole into an electary.

This is a good pectoral, and very useful in coughs.

These electaries may be occasionally taken to the quantity of a nutmeg or more, for loosening the belly in costive habits. They are frequently employed in clysters.

This composition is intended for those disorders of the breast which proceed from a laxity and debility of the vessels, and a thin acrimonious state of the fluids. It is sufficiently agreeable to the palate, and may be taken to the quantity of a nutmeg or more, several times a day.

L. *Electarium e Scammonio.*

Electary of Scammony.

Take of scammony, an ounce and a half; cloves, ginger, each

six drachms; essential oil of carraways, half a drachm; honey, half a pound. Let the spices be ground together, and mixed with the honey; then add the powdered scammony, and afterwards the oil.

This electary is a warm, brisk purgative. It is a reform of the *electarium caryocostinum* of our preceding Dispensatories; a composition which was greatly complained of, as being inconvenient to take, on account of the largeness of its dose. Thirty grains of this contain five grains of scammony.

L. *Electarium e Scordio.*

Electary of Scordium.

Take of the species of scordium with opium, any quantity; syrup of meconium, boiled to the consistence of honey, thrice as much by weight. Mix the species with the syrup, so as to make an electary.

E. D. *Electarium Japonicum, vulgo Confectio Japonica.*

Confection of Japan Earth.

Take of Japan earth, four ounces; gum kino, three ounces; cinnamon and nutmeg, of each one ounce; opium (dissolved in a sufficient quantity of white wine), a drachm and half; syrup of dried roses, (boiled to the consistence of honey), thrice the weight of the whole species. Mix, and make an electary.

It is not necessary, for the purposes of the shops, to make the species into an electary at all; by keeping it in this form, the ingredients lose greatly of their aromatic flavour and astringency. The London college have therefore very justly ordered them to be kept in powder as well as in an elec-

electary; and directed the powder both with and without opium, for different occasions. See *Species e scordio*, and *Pulvis e bolo, cum* and *sine opio*. Either of these powders may be made up extemporaneously into an electary, with any syrup that shall be judged proper.

Diafscordium was intended by its author Fracastorius for an antipestilential. It is a moderately warm, glutinous astringent and opiate: and in this light only is considered by the present practice. One grain of opium is contained in nine scruples of the electary of the London Pharmacopœia, and in ten scruples of that of the Edinburgh. This last composition is a very proper reform of the ancient diafscordium.

L. *Balsamum Lucatelli.*

Lucatellus's Balsam.

Take of oil of olive, one pint; Strasburgh turpentine, yellow wax, each half a pound; red sanders, six drachms. Melt the wax over a gentle fire, with some part of the oil; then add the rest of the oil, and the turpentine; afterwards mix in the sanders, and keep them stirring together until the mixture is grown cold.

This balsam is used in internal bruises and hæmorrhages, erosions of the intestines, ulcerations of the lungs, dysenteries, and in some kinds of coughs and asthma: the dose is from two scruples to two drachms; it may be commodiously exhibited along with about double its weight of conserve of roses. Some have likewise applied it externally, for deterging and incarnating recent wounds and ulcers.

Balsamum ad Apoplecticos.

Apoplectic Balsam.

Take of expressed oil of nutmegs, one ounce; distilled oil of cloves, of lavender, of rosemary, each half a drachm; of amber, half a scruple; balsam of Peru, one drachm. Liquefy the oil of nutmegs, and when taken from the fire mix into it the distilled oils and the balsam.

This medicine is recommended to be rubbed on the temples, and on paralytic limbs, for warming the part, and comforting the nerves: and to be smelt to, for refreshing and enlivening the spirits. Some have also given it inwardly as a warm cordial, in languid cases, and in debilities of the nervous system.

L. D. *Confectio Cardiaca.*

Cordial Confection.

Take of rosemary tops, fresh, juniper berries, each one pound; lesser cardamom seeds, husked, zedoary, saffron, each half a pound. Extract a tincture from these ingredients with about a gallon and a half of proof spirit: let the tincture be strained off, and reduced by a gentle heat to the weight of about two pounds and a half: then add the following ingredients very finely pulverized, and make the whole into an electary; compound powder of crabs claws, sixteen ounces; cinnamon, nutmegs, each two ounces; cloves, one ounce; double refined sugar, two pounds.

This preparation is a substitute for the laborious and very absurd composition, called *Confectio Ralighana*; and is now called the cordial confection; though it is a compo-

composition which seems not in the least to have any right to that name from the nature of the ingredients, except the saffron may be esteemed a cordial simple.

Were it not for the sugar, the medicine might be reasonably deemed a good carminative, since it consists of alkaline earths, which may remove the acscence that produces flatulencies in the intestines, and a warm extract, of an aromatic and bitter nature, to encourage the peristaltic motions, and aid their expulsive power. But the addition of sugar is greatly repugnant to this intention, since after it has been some time, as here, in the state of a syrup, it becomes the very kind of matter that produces those disorders in the intestines, for which this medicine is most properly the remedy; so that it certainly wants a reformation. There is likewise another capital error in regard to its form; if the extract be made of the quantity here directed, and the prescribed proportion of sugar and the powders be used, after a short time, the electary becomes so thin, that the powders subside, and the extract and sugar will rise above in the form of a very thin syrup. It is proper therefore to alter the proportion of the fluid to the sugar, and that of the powders to both; which may be done by wasting the extract to one pound and a half, instead of the two pounds and a half, and adding a quarter of a pound more of the powders, which will make an electary of a much better form, without the least impairing its medicinal virtue.

It is given in draughts, and in the form of a bolus, from ten grains to a scruple and upwards,

as a warm cordial and corroborant.

E. D. *Electarium Cardiacum, vulgo Confectio Cardiaca.*

Cordial Confection.

Take of conserve of orange peel, three ounces; of candied nutmeg, an ounce and a half; of candied ginger, six drachms; of cinnamon in powder, half an ounce; of syrup of orange peel, enough to make it into an electary.

This is presented in the same intentions as the preceding, and is a more elegant composition.

L. *Confectio Paulina.*

The Confection called Paulina.

Take of costus, or in its stead zedoary, cinnamon, long pepper, black pepper, (storax, galbanum, opium, strained), Russia castor, each two ounces; simple syrup, boiled to the consistence of honey, thrice the weight of the other ingredients. Warm the syrup, and carefully mix with it the opium, first dissolved in wine: gradually add this mixture, whilst it continues warm, to the storax and galbanum, previously melted together; and afterwards sprinkle in the other species reduced into powder.

This is the *Confectio Archigenis* of our former Dispensatory, brought back to its first form and author. It is a warm opiate medicine, and as such is sometimes made use of in practice: thirty-two grains contain one grain of opium.

L. *Mithridatum, sive Confectio Damocratis.*

Mithridate, or the Confection of Damocrates.

Take of cinnamon, fourteen drachms; myrrh, eleven drachms; agaric, Indian nard, ginger, saffron,

fron, seeds of Mithridate mustard, frankincense, Chio turpentine, each ten drachms; camels hay, costus, or, in its stead, zedoary, Indian leaf, or, in its stead, mace, stachas, long pepper, hartwort seeds, hypocistis, storax strained, opopanax, galbanum strained, opobalsam, or in its stead, expressed oil of nutmegs, Russia castor, each one ounce; policy mountain, scordium, carpobalsam, or, in its stead, cubebs, white pepper, Candy carrot seed, bdellium strained, each seven drachms; Celtic nard, gentian root, dittany of Crete, red roses, Macedonian parsley seed, lesser cardamom seeds husked, sweet fennel seed, gum arabic, opium strained, each five drachms; *calamus aromaticus*, wild valerian root, aniseed, sagapenum strained, each three drachms; *meum athamanticum*, St. John's wort, *acacia*, or in its stead, *terra Japonica*, bellies of skinks, each two drachms and a half; clarified honey, thrice the weight of all the other ingredients.

Warm the honey, and mix with it the opium, dissolved in wine; melt the storax, galbanum, turpentine, and opobalsam, (or expressed oil of nutmegs) together in another vessel, continually stirring them about, to prevent their burning; with these so melted, mix the hot honey at first by spoonfuls, and afterwards in larger quantities at a time; when the whole is grown almost cold, add, by degrees, the other species reduced into powder.

L. *Theriaca Andromachi.*

Venice Treacle.

Take of troches of squills, half a pound; long pepper, opium strained, vipers dried, each three ounces; cinnamon, opobalsam, or in its stead, expressed oil of nut-

megs, each two ounces; agaric, Florence orris root, scordium, red roses, navew seeds, extract of liquorice, each an ounce and a half; Indian nard, saffron, ammomum, myrrh, costus, or, in its stead, zedoary, camels hay, each one ounce; cinquefoil root, rhubarb, ginger, Indian leaf, or, in its stead, mace, dittany of Crete, horehound leaves, calamint leaves, stachas, black pepper, Macedonian parsley seed, olibanum, Chio turpentine, wild valerian root, each six drachms; gentian root, Celtic nard, spignel, (policy mountain, St. John's wort, ground-pine leaves,) germander tops with the seeds, carpobalsam, or, in its stead, cubebs, aniseed, sweet fennel seed, lesser cardamom seeds husked, (bishops weed, hartwort, treacle, mustard seeds) hypocistis, *acacia*, or, in its stead, Japan earth, gum arabic, storax strained, sagapenum strained, *terra Lemnia*, or, in its stead, bole Armenic, or French bole, green vitriol calcined, each half an ounce; small (or, in its stead, the long) birthwort root, lesser centaury tops, Candy carrot seed, opopanax, galbanum strained, Russia castor, Jews pitch, or, in its stead, white amber prepared, *calamus aromaticus*, each two drachms; clarified honey, thrice the weight of all the other ingredients.

Let these ingredients be mixed together, after the same manner as directed in making the Mithridate.

These celebrated compositions are almost the only reliques of ancient superstition that now remain among us. The theriaca is a reform of Mithridate, made by Andromachus, physician to Nero: the Mithridate itself is said to have been found in the cabinet of Mithridates, king of Pontus. The

first publishers of this pompous arcanaum were very extravagant in their commendations of its virtues; the principal of which was made to consist in its being a most powerful preservative against all kinds of venom: whoever took a proper quantity, in a morning, was insured from being poisoned during that whole day: this was confirmed by the example of its supposed inventor, who, as Celsus informs us, was by its constant use so fortified against the commonly-reputed poisons, that none of them would have any effect upon him when he wanted their assistance. But the notions of poisons, which prevailed in those ruder ages, were manifestly erroneous. Before experience had furnished mankind with a competent knowledge of the powers of simples, they were under perpetual alarms from an apprehension of poisons, and busied themselves in contriving compositions which should counteract their effects, accumulating together all those substances which they imagined to be possessed of any degree of alexipharmic power. Hence proceed the voluminous antidotes which we meet with in the writings of the ancient physicians: yet it does not appear that they were acquainted with any real poison, except the *cicuta*, *aconitum*, and bites of venomous beasts; and to these they knew of no antidote whatever. These medicines, therefore, were originally intended against diseases merely imaginary; nevertheless, as some of their ingredients are of the most powerful kind, succeeding ages applied them in real ones, and experienced good effects from them, as warm, diaphoretic opiates.

These compositions might, with-

out doubt, be lopt of numerous superfluities, without any diminution of their virtues; yet as the effects of them, in their present form, are so well known, so much regard has been paid to ancient authority, as not to attempt a reformation of that kind. The London college have, however, thought proper to retrench, from forms originally complex, all subsequent additions that have crept into them. Neither the description in verse of the elder Andromachus, or the prose explanation of the younger, make any mention of the white pepper, afterwards added to the theriaca; and the orris root in the Mithridate of our former pharmacopœias, is also a supernumerary ingredient, not warranted by the original: these therefore are rejected. Nor is the asarum in Mithridate grounded on any good authority: the verse it is taken from is mutilated and corrupt; and the word which some, upon conjecture only, suppose to have been asarum, others, also upon conjecture, chuse to read differently; till some emendation shall be better founded than merely upon critical guesses, this single species may be safely passed over without any prejudice to the medicine. None of the ancient descriptions afford any other light in this particular, for they either omit this ingredient, and others also, or abound with additions.

One innovation in both these medicines, the college have allowed themselves. In each of these compositions are found both cinnamon and *cassia lignea*; and it is very evident, from several parts of Galen's works, that the latter was used by the ancients only upon account of the great difficulty of

procuring the other; so that to retain the cassia, now that cinnamon is so common, is a blind following of these writers, without any attention to their meaning: the cassia therefore is now rejected, and half the quantity of cinnamon put in its room, which is the proportion that Galen directs to be observed in substituting the one for the other. It is probable that the case is the same, with regard to the Celtic and Indian nard; that the first had a place in these compositions, on account of the difficulty of procuring the Indian; for Galen expressly prefers the latter.

There is a material error in regard to the theriaca, which has passed through all the editions of our Pharmacopœia, except the present; this is, the substituting Roman vitriol to the ancient chalcitis, now not certainly known, and in the catalogue of simples, describing the Roman to be a blue vitriol; whereas the Italian writers are unanimous it is a green vitriol; and were it not, it would not answer to the effects of the chalcitis, which was certainly a chalybeate, and gives the medicine its black colour. What has chiefly occasioned chalcitis to be supposed a cupreous vitriol, seems to be its name, derived from χαλκος, copper; but it is to be observed, that all vitriols were formerly imagined to proceed from copper, and were named accordingly; the green, or martial vitriols, are still called by the Germans, *kupfer wasser*, and by us copperas. It is probable that the ancient chalcitis was no other than a native martial vitriol, calcined, by the heat of those warm climates, to a degree of yellowish red or coppery colour; and therefore the common green vitriol, thus

calcined by art, very properly supplies its place.

The London college have likewise somewhat facilitated the preparation of these medicines, by omitting the *trochisci cythereos* used in the Mithridate, and the *bedychroi* and *viperini* for the theriaca; and inserting their ingredients, after Zwelfer's manner, in the compositions they are intended for. This is done in the theriaca very commodiously, the ingredients in these troches uniting with those in the theriaca itself, into unbroken numbers. But to render the numbers equally simple in the Mithridate, it was necessary to retrench a few odd grains from some of the articles, and make a small addition to some others: they adjusted the proportions of the ingredients in the *trochisci cythereos* from the original description in Galen; the numbers in our former Pharmacopœia being very erroneous.

The college of Edinburgh have given an elegant reform of these compositions under the title of

E. D. *Electarium Thebaicum.*

Take of the aromatic species, six ounces; Virginian snake root in powder, three ounces; opium, (dissolved in a sufficient quantity of white wine) three drachms; clarified honey, thrice the weight of the whole species. Mix and make an electary.

N. B. It is a substitute for the *Theriaca Edinensis*.

This composition consists of very powerful ingredients, and is, doubtless, capable of answering every thing that can be reasonably expected from the more voluminous theriaca of Andromachus. For internal use, none of the theriacas are at present so much regarded as they

they have been heretofore ; practitioners having introduced, in their room, extemporaneous boluses of Virginian snake-root, camphire, contrayerva, and the like, either with or without opium, as the case requires.

With regard to the quantity of opium in these compositions, one grain thereof is contained in four drachms of the Mithridate of the London Pharmacopœia, in three scruples, fifteen grains, of the Venice treacle ; and in five scruples of the *Electarium Thebaicum*. The proportion of opium will vary a little, according to the time that they have been kept ; their moisture, by degrees, exhaling, so as to leave the remainder stronger of the opium than an equal weight was at first. A change of this kind is taken notice of by many writers, but falsely attributed to an imaginary fermentative quality of the ingredients, by which they were supposed, from their multiplicity and contrariety, to be continually exalting and improving the virtues of one another.

A good deal of care is requisite in making these compositions, to prevent the waste, which is apt to happen in the pounding, and which would render the proportion of opium to the other ingredients precarious. The intention of dissolving the opium in wine, for these and other electaries, is, that it may be more uniformly mingled with the rest.

L. *Philonium Londinense*.
London Philonium.

Take of white pepper, ginger, caraway seeds, each two ounces ; strained opium, six drachms ; syrup of meconium, boiled to the con-

sistence of honey, thrice the weight of the other ingredients. Heat the syrup, and carefully mix with it the opium, previously dissolved in wine ; then add the other ingredients, reduced into powder.

This is a reformation of the *philonium* described by Galen, and in our preceding Pharmacopœias distinguished by the epithet *Romanum*. The additional articles, and some unnecessary ones that were in the original, are here omitted, and the quantities of the others varied so as to preserve the same proportion of opium to the whole, as in our last Pharmacopœia. Thirty-six grains of the composition contain one grain of opium.

The Mithridate, *theriaca*, *diascordium*, *confectio Paulina*, and *philonium*, are all medicines of great power, and as, on the one hand, they are applicable to excellent purposes ; so, on the other, their imprudent use has often been productive of mischievous consequences. *Diascordium* has likewise been too unwarily given for restraining fluxes ; whose suppression was afterwards followed by more dangerous symptoms. The celebrated alexipharmics, Mithridate and *theriaca*, have oftentimes aggravated the disorders they were intended to remedy, have converted a common cold into a high fever, have raised slight febrile complaints into a malignant fever. However strongly, therefore, these kinds of medicines are recommended for easing pain, warming, promoting sweat, expelling malignity, &c. the utmost caution is requisite in the use of them : the cases which demand their assistance are much less frequent than is generally supposed.

From the former London Dispensatory.

Confectio Alkermes.

Confection of Kermes.

Take of the best scented rose water, two pounds; of the juice of kermes-berries, three pounds; of the whitest sugar, one pound: boil them almost to the consistence of honey, and then stir in the powders of cinnamon and aloes-wood, both the best in their kind, of each six drachms; and make the whole into a confection, *f. a.*

Diascordium.

A Composition of Scordium.

Take of cinnamon, and *cassia lignea*, of each half an ounce; of true scordium, one ounce; of Cretan dittany, tormentil, bitort, galbanum, and gum arabic, of each half an ounce; of storax, four drachms and a half; of opium, and seeds of sorrel, of each one drachm and a half; of gentian, half an ounce; of Armenian bole, one ounce and a half; of Lemnian, sealed earth, half an ounce; of long pepper and ginger, of each two drachms; of clarified honey, two pounds and a half; of sugar of roses, one pound; of generous Canary, eight ounces; make it into an electary, *f. a.* It also may be prepared with diacodium, instead of the honey, and leaving out the sugar of roses.

This is originally the prescription of *Hieronymus Fracastorius*, a celebrated Italian physician, given in his book *de Contagio, & Morbis contagiosis lib. iii. cap. .* and for that reason it is commonly in extemporaneous prescriptions called *Confectio Fracastorii*. The first of our college Dispensatories and the Augustan inserted it alike; but in subsequent editions it hath been

altered, though chiefly in the transposition of the ingredients. The present, however, is copied after the first form exactly, unless in the sugar of roses for conserve. The emendation here likewise to be made at discretion, of diascordium for honey, is, on many accounts, greatly to be liked; and the reason for such an alteration cannot but be obvious to every one acquainted with these matters. The scordium and dittany are to be finely picked from their stalks, and all powdered together, except the galbanum and opium, which must be strained and first mixed with the honey, and then the species sifted and stirred in; and after all, the wine put to it, as Zwelffer hath directed in his remark hereupon. Some also strain the storax; but it will pass with the others into a powder; but then it must be the better separated from the dross, else the quantity will be defective. For the sugar of roses, one ounce of the flowers are powdered with the dry ingredients; and so much the more honey put instead of the sugar. If for the *cassia lignea*, cinnamon be used, it much betters the medicine; both as the latter is a much more astringent spice, and as the other in time gives a slimy quality to the composition, and spoils it. This medicine is valued for its colour, which it receives only from the bole, the most indifferent ingredient in it; but as it is a sign of its freshness, it is of use; for this medicine is much the worse for age, and is known to be so by the red colour wearing off: but that likewise may be discovered by the faintness of its taste; for the aromatics by time exhale, and the roughness of the ingredients, in which its astringency

gency consists, by long continuance in a moist form, grow softer and smother upon the palate; as has been already frequently observed of things of that nature. The colour is indeed renewable by a little fresh bole; but the deceit may be discovered by the taste. Every one knows how much this is of use, and for what purposes; and indeed if the several ingredients be nicely selected, and the medicine fresh made, it is excellent in all fluxes whatsoever; and a great strengthener both of the stomach and bowels. In its influence upon fluxes, the opium has no small share; as may be well conceived from the virtues of that drug. It is given to children from five grains to one scruple, and to grown persons from one scruple to two drachms for a dose. There is but one grain of opium in five drachms twelve grains. A very mischievous way some nurses have got, of giving their children this medicine to make them sleep; more for their own ease than any thing else; which is frequently the foundation of many illnesses, from its keeping them too costive, the worst temper children can be in. Because honey, which is certainly an opener, and a powerful detergent, and therefore contrary to the main design of this composition, is here in so large a quantity, the modern practice has very prudently ordered this medicine to be made without it; by using in its stead a sufficient quantity of *Syrupus de Meconio*, boiled up to a due consistence, which greatly improves the medicine: but the quantity for a dose must then be proportionably lessened, as the syrup adds to its narcotic property. Many keep the ingredients in the species only, and

this is the best way of all to preserve their virtues entire; which no moist form can do those of an astringent nature. Of the species may be given for a dose from five grains to one scruple.

Philonium Romanum.

Roman Philonium.

Take of white pepper, and white henbane seeds, of each five drachms; of opium, two drachms and a half; of cassia bark, one drachm and a half; smallage-seed, one drachm; of the seeds of Macedonian parsley, fennel, and Cretic daucus, of each two scruples five grains; of saffron, one scruple and a half; of spikenard, pelitory of Spain, and zedoary, of each fifteen grains; of cinnamon, one drachm and a half; of myrrh and castor, of each one drachm; syrup of white poppies a sufficient quantity to make the whole into an electary. The *Philonium Londinense* is a proper reform of this.

Confectio Archigenis.

Archigenis's Confection.

Take of the best castor, of long and black pepper, storax, spikenard, costus, galbanum, and opium, of each half an ounce; of saffron, two drachms; of syrup of mugwort a sufficient quantity to make the whole into a confection. This is now called *confectio Paulina*, and is a little altered from the original.

Theriaca Londinensis.

London Treacle.

Take of the four greater and lesser hot seeds, of each one ounce; of the roots of angelica, Virginia snake-root, tormentil, elecampane, zedoary, contrayerva, calamus aromaticus, and gentian, of each two drachms;

drachms ; of the leaves of Cretic dittany, scordium, rue, bay-berries and juniper-berries, of each half an ounce ; of nutmegs, mace, saffron, myrrh, and cloves, of each three drachms ; of ginger and opium, of each two drachms ; of syrup of white poppies, boiled to a higher consistence than ordinary, three times as much as the weight of the rest ; and of Canary a sufficient quantity to make the whole into an electary.

This hath hitherto been chiefly used by the surgeons, where warm cataplasms are required.

Confectio Raleighana.

Sir Walter Raleigh's Confection.

Take of the shavings of hartshorn, one pound ; of vipers flesh with their hearts and livers, six ounces ; of the flowers of borage, rosemary, marigolds, *ros solis*, red-roses, and elder, of each half a pound ; of the leaves of scordium, carduus B. baum, Cretic dittany, mint, marjoram, betony, of each twelve handfuls ; of the juice of kermes, of the greater cardamom seeds, and cubebs, of juniper-berries, mace, nutmegs, cloves, and saffron, of each two ounces ; of the best cinnamon, saffras bark, and the yellow peel of citrons and oranges, of each three ounces ; of aloes-wood and saffras-wood, of each six ounces ; of the roots of angelica, wild valerian, fraxinella, or white dittany, Virginian snake-root, zedoary, tormentil, bistort, long and round birthwort, gentian, and masterwort, of each one ounce and a half. After all these are cut and grossly bruised, put them into a proper vessel to draw out their tincture with rectified spirit of wine, *f. a.* Filter this tincture, and

evaporate it into an extract by distillation in *balneo Mariæ*. Let the remains after pressing, be burned, and a lixivium made of the ashes, so as to procure a pure salt, *f. a.* which must be added to the aforesaid extract ; and afterwards to this extract add and stir in the following powder, and the other ingredients, *f. a.* Take of oriental and occidental bezoar, of each one ounce and a half ; of oriental pearls, two ounces ; or red coral, three ounces ; of oriental bole, true sealed earth, and calcined hartshorn, of each one ounce ; of ambergrise, one ounce ; of oriental musk, one drachm and a half ; of white sugar-candy powdered, two pounds ; and make a confection, *f. a.*

The college have substituted the *confectio cardiaca* for this ; which see.

Electarium Caryocostinum.

The Clove and Costus Electary.

Take of cloves, white costus, or zedoary, ginger, and cummin seeds, of each two drachms ; of hermodactyls cleared of their husks, and of diagridium, of each half an ounce ; of the honey of roses, three times the quantity of the whole. Let them all be powdered together, except the diagridium, and stirred into the honey of roses with a wooden spatula ; and at last put into the diagridium, powdered by itself ; and make them into an electary, *f. a.*

It works very briefly, and is found of great service in rheumatisms and athritic complaints. Its warmth also, and fitness to carry off watry cold humours, makes it very good in dropsies ; and gross habits. In apoplectic and paralytic cases likewise, where the fibres want

to be stimulated and shook with briskness, this is a proper medicine, if purging be required; but it is too smart for weakly people. Its dose is from one to

six drachms. There is in every half ounce of this, of diagridium and hermodactyls, of each fifteen grains.

S E C T. VII.

Of Troches and Pills.

ONE of these forms is much less used in modern practice than anciently; for the old Dispensatories abound with troches; whereas of those few that the college retain, half are not now in use, or ever made. The main design of this form seems to have been to preserve in readiness for present use, substances, which stood in need of some preparation; and took up time to reduce it into powder; and which by lying in a dry powder, would likewise be subject to decay sooner than in this form. Many of these also are contrived for the sake of taking them; which is by gradually dissolving in the mouth; as most of the balsamic and pectoral kind; and few else are now in use, besides those commonly called lozenges.

The next form contrived to preserve some parts of the *Materia Medica* in composition, is that of pills; and this is chiefly designed for such things as are too nauseous to be taken any other way, or are most readily fitted by their natural texture to this kind of management: Of the first kind are the aloes, colocynth, and the like, which are thus best concealed from

the taste; and of the latter are most gums, which with very little trouble are reduced into pills.

But this form being generally the most troublesome to take, as few things should be contrived into it as possible, that is, such only as by their irksomeness in going down any other way make it necessary to conceal them by this means. But this reason ought to extend only to those things, which are of sufficient efficacy, not to make above four or five small pills for a dose: thus the bark in powder, and all the lighter species, which are given in the quantity of half a drachm, or upwards, for a dose; if, to avoid the irksomeness of other forms, recourse should be had to this, a necessary quantity of moisture to reduce them into it, would make one dose into ten, twelve, or fifteen ordinary pills; which are more than any one can be imagined well to get down; for half a drachm in the mass makes five middle-sized pills, and half a drachm of dry powder will take up above double its quantity of syrup to bring it into a mass of due consistence. The gummy substances indeed are thus reducible by liquor, which will but little in-

crease

crease their bulks; and for this reason also they have a peculiar fitness for this form.

But there are some things absolutely unfit for pills, by reason of their natural texture and properties, except in small quantities; and these are all the volatile salts, and most of the fixed ones. The first heave and ferment them into unreasonable bulks, and the last render a mass so brittle and crumbly, as make it almost impossible to be worked into pills; though both these inconveniencies may in some measure be avoided, by contriving to mix with either of these salts, other things which are very tenacious, as some of the extracts and gums; and this makes the *Pilula ephrastica*, now directed in the Dispensatory, at first of a tolerable consistence.

One very material thing likewise to be considered in this form, whether officinal or extemporaneous, is, that the liquor or moisture wanted to give a consistence, have the most convenient fitness to the thing requiring it. Thus dry light powders will not make up with any thing thinner than syrup, and some of the heavy ones, as cinnabar, and most of the mercurials, will hardly do with any moisture of a lower consistence than honey or conserve: but the gummy substances, especially those which most approach to an oily or resinous texture, as galbanum, opopanax, myrrh, and the like, will not so well make up with syrups or conserves, not only on account of increasing their bulks too much, but because they will not so well incorporate with them, as with spirituous and more penetrating liquors. As this form, therefore, must have somewhat in

it adhesive and tenacious, where it is not in the dry substances, it must be sought for in a proper moisture to hold them together; and where it is sufficiently already in those substances, as in the gums, the thinner liquors are best to give them a consistence, or such as are better suited to incorporate with them than aqueous moistures, as the terebinthinous balsams; for some fat substances will refuse a syrup, at the same time that they will readily take in turpentine, or any thing of like disposition.

Trochisci et Tabellæ.

Troches and Lozenges.

General Rules for making Troches.

I. The rules laid down for making powders, are also to be observed in the powders for troches.

II. If the mass proves so glutinous as to stick to the fingers in making up, the hands may be anointed with any convenient sweet or aromatic oil; or else sprinkled with powder of starch, or with that of liquorice.

III. In order to thoroughly dry the troches, put them on an inverted sieve, in a shady, airy place, and frequently turn them.

IV. Troches are to be kept in glass vessels, or in earthen ones well glazed.

Trochisci Albi Rhasis, seu Sief Albi.

The White Troches, or Dry Collyrium of Razi.

Take of ceruse, three ounces; sarcocolla, one ounce; gum tragacanth, three drachms; camphor, one drachm; rose water, as much as is sufficient. Make them into troches according to art.

The

The making these ingredients into troches is an unnecessary trouble; since before they are used, they must be powdered again, for being mixed with rose water or other liquors, for the purposes of a cooling, antacid, and moderately astringent collyrium, injection, &c. The London college have therefore judiciously directed them to be kept in the form of powder (under the title of *Pulvis e cerussa compositus*) found in the original of Razi.

Trochisci Bechici Albi.

L. White Pectoral Troches.

Take of double refined sugar, a pound and a half; starch, an ounce and a half: liquorice, six drachms; Florence orris root, half an ounce.

Reduce these ingredients into powder, which is to be made up into troches with a proper quantity of mucilage of gum tragacanth.

E. Take of white sugar, a pound; gum arabic, two ounces; starch, one ounce; flowers of Benjamin, half a drachm. When the whole is reduced to a powder, make it into a mass with rose-water.

These compositions are very agreeable pectorals, and may be used at pleasure. They are calculated for softening acrimonious humours, and allaying the tickling in the throat, which provokes coughing.

L. *Trochisci Bechici Nigri.*

Black Pectoral Troches.

Take of extract of liquorice, double refined sugar, each ten ounces; gum tragacanth, half a pound.

Drop upon these ingredients, so much water as will make the mass soft enough to be formed into troches.

E. Take of extract of liquorice; gum arabic, each four ounces; water, a sufficient quantity. Boil till they are dissolved; to the strained liquor add eight ounces of white sugar, and evaporate.

These compositions are calculated for the same purposes as the white pectoral troches above described.

E. *Trochisci Bechici cum Opio.*

Take of opium, and balsam of Peru, each one drachm; pure sugar, two drachms; the mass of black bechic troches, seven ounces.

Rub the opium with the balsam and sugar; afterwards by little add the mass, previously softened with a little warm water. The whole being well mixed, dry and make it into troches of five and ten grains weight.

Trochisci Cytheos pro Mithridatio.

The Troches called Cyphi (Incense-cakes) for Mithridate.

Take of raisins of the sun, stoned, turpentine of Cyprus, each three ounces; myrrh, camels hay, each an ounce and a half; cinnamon, half an ounce; saffron, one drachm; bdellium, spikenard, cassia lignea, cyprus roots, the round or long, juniper-berries, each three drachms; aspalathus, or yellow sanders, two drachms and a half; calamus aromaticus, nine drachms; clarified honey, as much as is sufficient.

Grind the bdellium and myrrh with as much Canary wine as will reduce them to the consistence of honey; then add thereto the pulp of the raisins, the turpentine, and the honey, and lastly the other ingredients reduced into a very subtile powder. Make the whole into troches according to art.

Trochisci

*Trochisci diſſi Magna Hedychroi,
pro Theriaca Andromachi.*

The Troches called Hedychroi (pleaſant-coloured) for Venice Treacle.

Take of marum leaves, marjoram leaves, aſpalathus, or yellow ſanders, aſarum roots, each two drachms; camels hay, calamus aromaticus, Pontic phu (or wild valerian root) xylobaſamum, (or agallochum) opobaſam, (or baſam of Peru) coſtus, (or zedoary) cinnamon, each three drachms; myrrh, malabathrum (or bay leaves), Indian nard, caſſia lignea, ſaffron, each ſix drachms; amomum (or cloves), an ounce and a half; maſtich, one drachm; Canary wine, as much as is ſufficient. Make them into troches according to art.

Theſe and the foregoing troches, as their titles import, are deſigned only as ingredients, one in the Mithridate, the other in the theriaca, though moſt of their articles are inſerted therein over again. The London college has rejected the needleſs trouble of making either of theſe troches; and in their ſtead, direct the ſeveral articles which they conſiſt of, to be united in thoſe compoſitions directly.

Trochisci de Minio.

Red-Lead Troches.

Take of red-lead, half an ounce; corroſive mercury ſublimate, one ounce; crumb of the fineſt bread, four ounces. Make them up with roſe water into oblong troches.

Theſe troches are employed only for external purpoſes, as eſcharotics: they are powerfully ſuch, and require a good deal of caution in their uſe,

Trochisci e Myrrha.

Troches of Myrrh.

Take of myrrh, an ounce and a half; lovage ſeeds, penny-royal leaves, Ruſſia caſtor, galbanum, each one ounce; eſſential oil of ſavin, half a drachm, elixir proprietatis, as much as is ſufficient.

Let the gums be ſoftened with the elixir into a maſs of the conſiſtence of honey; then add the oil and powder, and make the whole into troches according to art.

Theſe troches are very well contrived, in regard to efficacy: there ſeems to be no occaſion for making a medicine of this kind into troches, as it cannot be conveniently taken in that form; the London college have therefore exchanged their *Trochisci e myrrha* for a *Pulvis e myrrha compoſitus*, which ſec. Both compoſitions are deſigned for anti-hyſterics and promoters of the uterine diſcharges: the doſe is from a ſcruple to a drachm.

L. & E. *Trochisci e Nitro.*

Troches of Nitre.

Take of nitre purified, four ounces; double refined ſugar, one pound. Make them into troches with mucilage of gum tragacanth.

In reſpect of this preparation, it is neceſſary to caution thoſe, who, deluded by its neatneſs, and encouraged by the authority of its place in this Dispensatory, might be induced to give nitre in this form, that they ſhould conſider what may be the effects of taking freely, even any neutral ſalts in an undiſſolved ſtate, which, in caſe of a defect of fluid in the ſtomach, will have the power of lighter cauſtics. But this reaſon receives yet an additional force in reſpect to nitre, of which it is a known property, when given in larger doſes,

doses, to occasion frequently very uneasy, and sometimes almost intolerable sensations in the stomach, if not very copiously diluted: though this is too often neglected in private practice, yet one must hope, the college did not overlook it, and intend these troches to be given as such, but only directed the nitre to be kept in this form, that it might be the more readily dissolved on any sudden occasion.

L. *Trochisci e Scilla.*
Troches of Squills.

Take of baked squills, half a pound; wheat flour, four ounces. Beat them together, and form the mass into troches, which are to be dried with a gentle heat.

Trochisci Scillitici pro Theriaca Andromachi.

Troches of Squills for Venice Treacle.

Take a whole squill, after the leaves and stalks are withered. Having peeled off the outward skin, inclose the squill in a paste of wheat flour, and bake it in an oven until the paste is dried into an hard crust.

Let three ounces of squills, thus baked tender, be beat in a mortar with two ounces of the meal of white vetch, or of common wheat flour, into a paste, which form into troches, to be gently dried in the shade.

The squill itself, moderately dried, is justly preferred to these troches.

These preparations are used only as ingredients in the theriaca. The design of baking the squill is to abate its acrimony, and making it afterwards into troches seems the most convenient way of drying it; common wheat flour is as fit for

this purpose as any, though that of the white vetch has been generally directed.

L. *Trochisci e Sulphure.*
Troches of Sulphur.

Take of flowers of sulphur, washed, two ounces; double refined sugar, four ounces; beat them together, and adding some mucilage of quince-seeds, form them into troches.

E. *Trochisci e Sulphure sive Diasulphuris.*

Troches of Sulphur.

Take of flowers of sulphur, one ounce; flowers of benzoine, ten grains; white sugar, two ounces; factitious cinnabar, half a drachm; mucilage of gum tragacanth, as much as is sufficient. Mix and make them into troches, according to art.

These compositions are to be considered only as agreeable forms for the exhibition of sulphur, no alteration or addition being here made to its virtue; unless that by the flowers of benzoine in the second prescription, the medicine is supposed to be rendered more efficacious as a pectoral.

L. *Trochisci e Terra Japonica.*
Troches of Japan Earth.

Take of Japan earth, gum tragacanth, half an ounce; sugar, one pound. Beat them together, and dropping in some water, make them into troches.

Take of Japan earth, two ounces; gum tragacanth, half an ounce; white sugar, one pound; rose water, a sufficient quantity. Make them into troches.

A preparation of this kind, with the addition of ambergrise and musk,

musks, which are here more prudently omitted, has long been in some esteem as a mild restraining, &c. under the title of Catechu. Medicines of this class in general are excellently fitted for the form of troches: for when slowly and gradually received into the stomach, as this form occasions them to be, they produce much better effects, than if an equal quantity was taken down at once. Japan earth is for this purpose one of the most proper of the restringents, as being totally soluble, mild in quality, and free from any ungrateful relish, which most of the others are accompanied with. The troches are sufficiently palatable, and of considerable service in some kinds of coughs, thin acrid defluxions, diarrhœas, and disorders proceeding from a laxity of the intestines.

Trochisci Viperini pro Theriaca Andromachi.

Viper Troches for Venice Treacle.

Take of vipers flesh (first freed from the skin, intestines, fat, heads, and tails, then boiled in water, with a little dill and salt, till it has grown soft, and afterwards separated from the back bone) eight ounces; biscuit bread, pounded and passed through a sieve, two ounces.

Beat them together, with a sufficient quantity of the liquor wherein the vipers were boiled, into a mass; which is to be formed into troches according to art.

These troches are brought to us ready made from abroad; but the vipers flesh itself dried, is justly preferred to them: and accordingly the London college have entirely omitted the troches, and supplied their place in the theriaca,

with a suitable quantity of the dried flesh of the animal. The troches brought from abroad are certainly very insignificant, if genuine, which some suspect they are not.

L. *Tabellæ Cardialgica.*
Cardialgic Lozenges.

Take of chalk prepared, four ounces; crabs claws prepared, two ounces; bole Armenic, or French bole, half an ounce; nutmegs, one scruple; double refined sugar, three ounces: reduce these ingredients into powder, and make them into troches with water.

L. *Saccharum Rosaceum.*
Sugar of Roses.

Take of red-rose buds, freed from the heels, and hastily dried, one ounce; double refined sugar, one pound. Reduce them separately into powder, then mix, and moisten them with water, that they may be formed into troches, which are to be dried by a gentle heat.

Saccharum Rosarum Rubrum.
Red Sugar of Roses.

Take of white sugar, one pound: conserve of roses four ounces; if any liquid is wanted, take of the syrup of dried roses, *a. f.*

These preparations are chiefly valued for their agreeableness to the eye and palate. Some likewise esteem them, medicinally, as light restringents; and look upon them, not undeservedly, as an excellent addition to milk in pthysical and hectic cases.

Trochisci de Benzoino.
Troches of Benjamin.

Take sugar-candy, one pound, melt it in rose-water; then taking
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it from the fire, dissolve in it strained storax, one ounce, which stir well together, and when almost cold, sift in fine powder of Benjamin, six drachms; aloes wood, half an ounce; orris-root an ounce; mull, one scruple; and with a sufficient quantity, if any be wanting, of the tragacanth mucilage and rose-water, make them into a paste.

This is an admirable balsamic, and would be of great service to such who are subject to diseases of the breast, and inclinable to consumptions, if frequently taken. They give likewise a very agreeable sweetness to the breath. They may be used at discretion. If the aloes wood was omitted, they would be never the worse; but rather more grateful.

Trochisci Balsamici.

Balsamic Lozenges.

Take balsam of Tolu, and orris-root, of each one ounce; gum tragacanth and arabic, of each half an ounce; flowers of Benjamin, two drachms; white sugar-candy, one pound. When all are reduced to a fine powder, make them into a paste, with mucilage of quince-seeds and rose-water, for lozenges.

These make a most grateful remedy in all kinds of coughs; and may be used at pleasure.

Pilule. Pills.

General Rules for making Pills.

I. Let the rules, laid down for the making of powders, be carefully observed here.

II. Gums and inspissated juices are to be first softened with the liquid prescribed; then add the powders by little and little, and beat the whole well together.

III. The masses for pills are best

kept in bladders, which should be moistened, now and then, with some of the same kind of liquid that the mass was made up with.

E. *Pilule Æthiopice.*

Ethiopic Pills.

Take of quicksilver, six drachms; golden sulphur of antimony, gum guaiacum and honey, each half an ounce.

Grind the quicksilver with the honey, in a glass mortar, until the mercurial globules entirely disappear; then add the golden sulphur, and the guaiacum, with as much mucilage of gum arabic, as is sufficient to make the mixture into a mass of the proper consistence for forming pills.

These pills, in their present form, resemble Dr. Plummer's pills, described in the Edinburgh Essays, to which they are preferable in one respect, that they are less apt to run off by stool. The honey is added merely to promote their dissolution in the stomach; for pills made up of resins and substances not easily dissoluble, frequently pass through the body entire.

This medicine is an useful alterative both in cutaneous and venereal disorders. One fourth part of the quantity above prescribed may be made into sixty pills; of which, from one to four may be taken every night and morning, the patient keeping moderately warm during the whole time that this course is continued.

L. *Pilule Aromaticæ.*

Aromatic Pills.

Take of Succotrine aloes, an ounce and a half; gum guaiacum, one ounce; aromatic species, balsam of Peru, each half an ounce. Reduce the aloes and gum guaiacum

cum separately into powder, then mix them with the rest, and make the whole into a mass with syrup of orange peel.

It is somewhat difficult to unite these ingredients into a mass fit for making pills of. The best way is, to first rub the aromatic species with the balsam, then to add the powdered aloes, and afterwards the guaiacum; when these are well mixed together, drop in the syrup by little and little at a time.

These pills are contrived to supply the place of the *Pilule Diambræ* of our former Pharmacopœia. They are far more elegant as well as simple, truly uniform in their ingredients, and excellently adapted to the purposes they seem designed for. Taken in small doses, as half a scruple, or a little more, and occasionally repeated, they warm the stomach, and by degrees the whole habit, promote perspiration, and all the natural secretions: hence, in cold phlegmatic temperaments, sluggish indispositions, and obstructions of the viscera, or remoter glands, proceeding from these causes, this stimulating warm medicine proves eminently serviceable. If the dose is considerable, it operates gently by stool; and if continued for some time in smaller doses, it proves at length purgative, or introduces a salutary looseness.

L. *Pilule ex Colocynthide Simpliores.*

The more simple Colocynth Pills.

Take of pith of colocynth, scammony, each two ounces; oil of cloves two drachms. Pulverize the dry species by themselves, then mix in the oil, and make the whole into a mass, with syrup of buckthorn.

E. D. *Pilule Aloeticæ.*

Aloetic Pills.

Take of Succotrine aloes and extract of gentian, of each two ounces; and sal polychrest, half an ounce; syrup, a sufficient quantity to make a mass.

E. *Pilule Cæruleæ.*

The Blue Pills.

Take the ammoniac copper, sixteen grains; bread crumbs, four scruples; spirit of sal ammoniac, enough to make a mass; to be divided into thirty-two pills.

L. *Pilule ex Colocynthide cum Aloc.*

Colocynth Pills with Aloes.

Take of Succotrine aloes, scammony, each two ounces; pith of colocynth, one ounce; oil of cloves, two drachms. Let the dry species be separately reduced into powder; then mix in the oil, and make the whole into a mass with syrup of buckthorn.

E. *Pilule ex Colocynthide cum Aloc, vulgo Pilule Cocciaë.*

The Pills called Cocciaë.

Take of Succotrine aloes and scammony, of each two ounces; sal polychrest, two drams; pulp of bitter apple powdered, one ounce; oil of cloves, two drachms. Rub the aloes and scammony with the salt into a powder, then add the bitter apple and the oil; lastly, with the mucilage of gum arabic make a mass.

These pills are strong cathartics. They are commonly made use of where brisk purgatives are necessary, in doses of a scruple, or half a drachm, and sometimes two scruples. Half a drachm of those of the London Pharmacopœia contains nearly of colocynth, four grains; aloes and scammony, of each

each eight grains. The same quantity of those of the Edinburgh contains very nearly the same proportions.

E. D. *Pilulæ de Jalappa.*
Jalap Pills.

Take of extract of jalap, two ounces; aromatic species half an ounce; simple syrup, enough to make them into a mass for pills.

L. *Pilulæ Ecbolicæ.*
Deobstruent Pills.

Take of the aromatic pills, three ounces; rhubarb, extract of gentian, salt of steel, each one ounce; salt of wormwood, half an ounce; beat them together into a mass, with solutive syrup of roses.

It is difficult to bring this mass into the due consistence, the two salts acting upon one another, so as to make it swell and crumble. Notwithstanding the alkaline salt employed, the pill does not prove at all alkaline; for the acid of the salt of steel forsakes its metal, and unites with the alkali, into a vitriolated tartar: whence some have proposed using, instead of the two salts here directed, an ounce of vitriolated tartar already made, and half an ounce of any of the calces of iron: this they observe prevents the inconveniency above mentioned, without making any apparent alteration in the quality of the medicine.

These pills are very properly called chalybeat; the salt of steel, which is one of the most active preparations of the metal, and are very well calculated for answering the intention expressed in the title. A drachm of the mass may be made into twelve pills, and three of these taken every night, in chlorotic and other cases, where warm,

aperient, or deobstruent medicines are proper.

Pilulæ Ecbolicæ Purgantes.
Purgative Deobstruent Pills.

Take of Suecotrine aloes, extract of black hellebore, scammony, each one ounce; gum ammoniacum, resin of guaiacum, each half an ounce; vitriolated tartar, two drachms; essential oil of juniper berries, one drachm. Beat them into a mass, with a sufficient quantity of syrup of buckthorn.

This medicine may be given as an alterant and deobstruent, in doses of eight or ten grains: a scruple or half a drachm generally proves purgative.

L. *Pilulæ Gummosæ.* Gum Pills.

Take of galbanum, opopanax, myrrh, sagapenum, each one ounce; asa fœtida, half an ounce; make them into a mass with syrup of saffron.

E. Take of asa fœtida, galbanum, and myrrh, of each one ounce; and rectified oil of amber, one drachm; simple syrup, enough to make a mass.

All these pills are designed for antihysterics and emmenagogues, and are very well calculated for answering those intentions; half a scruple, a scruple, or more, may be taken every night or oftener.

L. *Pilulæ Mercuriales.*
Mercurial Pills.

Take of quicksilver, five drachms; Strasburgh turpentine, two drachms; cathartic extract, four scruples; rhubarb powdered, one drachm.

Grind the quicksilver with the turpentine, until they are perfectly incorporated; then let the other

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ingredients be beat up with this mixture into a mass. If the turpentine happens to be too thick, soften it with a little oil olive.

E. *Pilula Mercuriales.*
Mercurial Pills.

Take of pure quicksilver and honey, of each one ounce; crumbs of bread, two ounces; rub the quicksilver with the honey in a glass mortar, until the globules disappear, and as required, add a little of the simple syrup; then add the crumb of bread, and with water make up a mass, to be made immediately into four hundred and eighty pills.

All these mercurial pills are capable of doing good service in sundry chronical disorders. They may be given as alteratives in doses of eight or ten grains. The London mercurial pills are purgative mercurials; and in this intention the dose may be increased to half a drachm, or farther. Belloste's pills, if the analysis, that has been made of them be just, are somewhat similar to these: they are supposed to be made up of crude quicksilver, resin of guaiacum, a chemical oil, and extract of rhubarb.

E. *Pilula Thebaica, vulgo Pacifica.*

The Pacific Pills.

Take of opium, half an ounce; extract of liquorice, two ounces; Spanish soap, an ounce and half; Jamaica pepper, one ounce. The opium and extract soften separately with water, and beat them into a pulp; then add them to the soap and the pepper, all which must be well beat into a mass.

These pills were contrived by a chemical empyric, Starky, and

communicated by him to Mathews, under whose name they were, some time ago, greatly celebrated. None of the ingredients are of much consequence, except the opium; their quantity being too inconsiderable to answer any useful purpose. Eight grains of the composition contain nearly one of opium.

E. *Pilula Plumeri.*
Plummer's Pills.

Take of sweet mercury, and the precipitated sulphur of antimony, of each six drachms; extract of liquorice, half an ounce. Rub the mercury with the sulphur so as intimately to mix them; then add the extract, and enough of the mucilage of gum Arabic, to make a mass.

L. *Pilula Rufi.* Rufus's Pills.

Take of Succotrine aloes, two ounces; myrrh, saffron, each one ounce. Make them into a mass with syrup of saffron.

L. *Pilula Saponacea.*
Saponaceous Pills.

Take of almond soap, four ounces; strained opium, half an ounce; essence of lemons, one drachm. Soften the opium with a little wine, and then beat it with the rest, until they are perfectly mixed.

This pill is introduced in the room of Mathews's. The soap promotes the solution of the opium in the stomach, and thus occasions it to act the more quickly; which is the only intention that the more laborious soap of tartar can answer. The essence of lemons gives an agreeable flavour, makes the medicine sit easy on the stomach, and prevents a nausea which it would

would otherwise be apt to occasion. Ten grains of the pill contain nearly one grain of opium.

Pilule Scilliticæ.

Scillitic Pills.

Take of gum ammoniacum, of cardamom seeds in powder, and of fresh squills, of each half an ounce. Beat the squills and ammoniacum together, then add the cardamom seeds. If the mass is too stiff, soften it with balsam copaiba.

These pills are very efficacious in promoting urine and expectoration, and in general for attenuating the viscosity of the fluids. A scruple of the composition above directed contains nearly eight grains of fresh squills.

Pilule Stomachicæ.

Stomachic Pills.

Take of rhubarb, one ounce; Succotrine aloes, six drachms; myrrh, half an ounce; vitriolated tartar, one drachm; essential oil of mint, half a drachm; syrup of orange peel, as much as is sufficient to make the other ingredients into a mass.

This pill is intended for moderately warming and strengthening the stomach, and evacuating crude viscid humours. It may be taken, as an alterant, in doses of ten, fifteen, or twenty grains.

L. *Pilule e Styrace.*

Storax Pills.

Take of strained storax, two ounces; saffron, one ounce; strained opium, five drachms. Beat them together till perfectly united.

This composition is contrived for dissolving more slowly in the stomach than the saponaceous or Mathews's pills, and consequently

producing more gradual and lasting effects. One grain of opium is contained in five grains and four fifths of a grain of the storax pills.

Pastilli Cathartici.

Purging Sugar-Plumbs.

Take resin of scammony, two drachms; fine loaf sugar, one pound. Mix them together after the resin is rubbed into a very fine powder; and with a very little mucilage, make a paste, which work up into small pills.

This is contrived chiefly for young children, who will not be prevailed with to take a cathartic in any other form; but may be cheated with this, the quantity of resin not giving a discernible difference to the sugar. But this is rough physic for tender children; though with many it does a great deal of good, by purging off that slime from their bowels, which breeds worms, and occasions fevers, and a stinking breath. One or two of these is a sufficient dose. Those which are so frequently in public advertisements, are no other; whatsoever their venders may pretend to.

Pilule de Ammoniaco Magistrales.

Magisterial Pills of Ammoniacum.

Take of gum ammoniacum, prepared with the vinegar of squills, two ounces; of Succotrine aloes, one ounce and half; of myrrh, mastich, and Benjamin, of each half an ounce; of saffron, and salt of wormwood, of each two drachms; of syrup of wormwood a sufficient quantity, to make them into a mass for pills.

This seems to be taken from the Augustan Dispensatory, where they are ascribed to Quercetan, as their author. The variation

here from that is very little. Zwelffer orders so much vinegar to be used in the dissolution of the gums, as not to want any syrup to give a due consistence. He also greatly blames the lixivial salt in this composition; not only as foreign to the intention of the whole, but because it spoils its due consistence for pills, by taking away its tenacity, and making it crumbly, as all such salts will do to adhesive substances. This composition is given by Schroder, much in the same manner as it is continued here.

Pilulæ Cochiae majores.

The greater Pills Cochiae.

Take of hiera picra, ten drachms; of the troches of alhandal, three drachms and half; of diagrydium, two drachms and a half; of the most resinous turpeth, five drachms; and make them into a consistence fit for pills, with a sufficient quantity of syrup of buckthorn, *f. a.*

Pilulæ Ruffi, five communes.

Ruffus's, or the common Pills.

Take of the best aloes, two ounces; of choice myrrh, an ounce; of saffron, half an ounce; and make them altogether into a mass, of a consistence fit for pills, with a sufficient quantity of the simple syrup.

These are generally ascribed to Ruffus, a noted and very ancient physician; though Zwelffer will have it that he borrowed them from Paulus Aegineta, lib. ii. cap. 26. but with a difference from either of them, as they put an equal quantity of gum ammoniacum with the aloes, and no saffron. The ingredients are much the best reduced into powder separately; be-

cause they are so different in texture from one another, that they will not do in a mortar well together. This medicine was designed by its first prescribers, to be dissolved for potions; but its extreme bitterness making that intolerable, the moderns have very justly retained it in pills for their extemporaneous practice. Felix Platerius hath a prescription, under the title of *Pilulæ pessilentiales*, which hath all the ingredients of this, but joined with many others, which seem rather to clog than improve it. Schroder also gives one by the name of *Pilulæ Pessilentiales compositæ*, not different but in the addition of things that rather spoil than mend it. This is accounted a good stomach purge, and with good reason, for it greatly warms and strengthens it, and but very gently purges. It is peculiarly good in cold constitutions and indigestions; and will many times, without any other help, cure a green-sickness; in which case it greatly promotes the menstrual discharges, and opens uterine obstructions. It may be given from fifteen grains to a drachm; but this is not so fit for a cathartic as an alterative, and therefore ought rather to be given in moderate doses, and be long continued.

Pilulæ Barbarosæ.

Take the finest Turkey rhubarb, two ounces; diagrydium, one drachm; quicksilver, half an ounce; musk, ten grains; make them into a mass, with a sufficient quantity of flour.

These are also called *Ceruleæ*. The mercury must be incorporated first with turpentine; after which, if the powders will not make it sufficiently stiff for pills, add enough liquor-

liquorice-powder, instead of what is here ordered. These have been a mighty secret with many in venereal cases; and in leprosy and cutaneous foulnesses. It is certainly a very good medicine for such purposes; and, with continued use, will break through all the glandular obstructions, and force away

those acrimonious humours which corrode, ulcerate, and deform the capillary vessels; especially upon the surface, where the external cold helps to detain them, until they cover the skin with blotches. This is likewise to be depended upon in most chronic distempers, especially those which are scrophulous.

S E C T. VIII.

Of Powders, and Species.

HAVING gone through those officinal forms, wherein the virtues of simples are drawn out by liquors, or the things themselves preserved with sugar; the next division gives us compositions of them in substance, with no other alteration made by art, than reducing them to powder; a procedure so very simple in itself, that it requires no other skill than having those things which come under its management sufficiently dry, in order to be so divided.

In judging then of the fitness of materials for this treatment, only these two considerations necessarily require our attention. The first is, whether the things themselves are thus reducible, without any previous management that may hurt their medicinal virtues? And next, whether their virtues are conveniently preserved in this form when reduced into it?

Under the first of these it naturally occurs, that viscid and oily substances cannot be thus managed without first reducing them to some brittleness, which cannot be done without drying. If such things

therefore cannot be sufficiently dried for triture, without exhaling their better parts, or destroying that particular quality for which the simple is valued in medicine, as it happens with many seeds and gums, they are much fitter for some other forms than for this; though these inconveniencies may be avoided where such things bear so small a proportion to those which are very dry and brittle, that they are so lost, and as it were absorbed by them in triture, that all pass the sieve well enough together. But this, however, should make the prescriber wary of crowding into any composition under this form too many gums or seeds; and the preparer careful in giving them a requisite brittleness by drying; which latter may, in some measure, be known by the compositions preserving the scent or particular qualities of the ingredients suspected.

The other requisite in this form, relating to the preservation of things reduced into it, directs us not to prescribe materials therein which are volatile, or will any

other way change in the open air ; thus the finer aromatics will decay, and every thing very volatile. Alcalous salts likewise are not to come in this form, because they will dissolve in air. These latter inconveniencies may indeed be, in some measure, avoided, by keeping such compositions as have in them these exceptionable ingredients, in vessels stopped close from the air ; but the necessity of frequently opening them in the shops for common occasions, will submit them more to such decay than is consistent with keeping them any long time good.

What hath been already taken notice of as necessary to be regarded in the officinal prescriptions of this form, should also be equally attended to in extemporaneous practice ; that is, not to direct any thing in a powder which will waste by its volatility, or which is not reducible into it, without such previous management as will hurt its medicinal virtues. All volatile salts, in particular, ought to be avoided in these prescriptions, as that of hartshorn, sal ammoniac, and the like ; though in the *sal succini* there is somewhat so fixed that it will remain a considerable time in this form without any discernible loss. Some regard also in common practice is to be had to the vehicle, with which some things have, and others have not, a peculiar fitness for mixture. Thus the *Æthiops*, and every thing that takes in sulphur, when prescribed in powders, should be ordered to be taken in a syrup, or some pulp, because it is very troublesome to mix with any thing thinner ; its offensive black colour is also best disguised with prunes, or any thing of like kind. Every

powder likewise that takes in crude antimony, any of the mercurials, or things of like weight, must not be trusted in thin vehicles, because they will immediately settle, and, by reason of the small quantities, be liable to be left at the bottom of what they are given in. Powders likewise which take in any resinous substances, as scammony, resin of jalap, or any thing of like texture, should be directed in vehicles of some consistence, and be carefully mixed, because in thin ones they are apt to run into clots, which are not easily again dissolvable.

The doses of most powders ought seldom to exceed half a drachm, because of their difficulty to take ; and rather than to put things together which have not sufficient efficacy in that quality, it is more eligible to have recourse to things of like intention in some other form.

In acute cases, where the stomach hath been dried with much heat, too many of these, especially of the warmer alexipharmics, as the contrayerva and snake-root, are not usually judged so proper as the liquid forms, and the virtues of the same things drawn out by infusion.

All resinous substances, which come under this management, require the mortar to be a little greased, else they will not powder, but form into lumps at every stroke ; and they should be rather rubbed than beat. The aromatics, which waste much by flying away, ought to be sprinkled with spirit enough to keep them down, but not so as to make them clog the sieve, by sticking in their passage.

In all these compositions the herbs are expected to be picked clean from the stalks, and all decayed

cayed leaves; the flowers as fresh as can be dried, and clean pickled; and every other ingredient in the greatest perfection, in every respect, because the whole here goes into the stomach; whereas in tinctures, distillations, and the like, the gross is left behind; and is not therefore much regarded.

L. *Pulvis Ari compositus.*

Compound Powder of Arum.

Take of arum-root, fresh dried, two ounces; yellow water-flag roots, burnet, saxifrage roots, each one ounce; crab's eyes prepared, cinnamon, each half an ounce; salt of wormwood, two drachms. Beat them into a powder, which is to be kept in a close vessel.

This composition was originally intended for a stomachic; and in cold sluggish temperaments, where viscid phlegm and crude acid juices abound in the first passages, it proves a very serviceable one, dissolving and promoting the expulsion of the noxious humours, exciting appetite, and opening obstructions, not only of the viscera, but likewise of the remoter glands, whence it becomes useful in scorbutic cases also: the dose is from one scruple to two. It is best when fresh made: in keeping, it is apt to grow mouldy, and lose of its efficacy; the arum root, in particular, soon loses the pungency in which its virtue resides. The roots should be taken up when the leaves begin to decay, for then they retain their pungency for many months.

L. D. & E. D. *Pulvis Antilyssus.*

Powder against the Bite of a mad Dog.

Take of ash-coloured ground

liverwort, two ounces; black pepper, one ounce. Beat them together into a powder.

The virtue which this medicine has been celebrated for, is expressed in its title: the dose is a drachm and a half, to be taken in the morning fasting, in half a pint of cows milk warm, for four mornings together. Before the use of the powder, the patient is to be blooded; and after it, to be dipt in cold water every morning fasting for a month.

Pulvis ad Epilepticos de guttata dictus.

Powder against Epilepsies.

Take of wild valerian root, piony root, each equal parts. Mix and make them into a powder.

The composition that formerly went by this name, was crouded with uselefs and insignificant ingredients; all that is effectual is to be found in this, and perhaps the valerian alone would be still better. The dose is from a scruple to a drachm.

L. *Pulvis e Bolo compositus sine Opio.*

Compound Powder of Bole without Opium.

Take of bole Armenic, or French bole, half a pound; cinnamon, four ounces; tormentil-root, gum arabic, each three ounces; long pepper, half an ounce. Reduce these ingredients into powder.

L. *Pulvis e Bolo compositus cum Opio.*

Compound Powder of Bole with Opium.

Take of opium strained, three drachms. Dry it a little, so as to render it easily pulverable; and add it to the foregoing species, that they may all beat into a powder together.

This powder, with opium, is an
H h 4 ele-

elegant reform of the species of Fracastorius's confection, commonly called *diacordium*; consisting only of such of the ingredients of that composition as are most conducive to the intention for which it is at present prescribed. Forty five grains of the powder contain one of opium.

It is a warm, glutinous astringent; and in fluxes, or other disorders, where medicines of this class are proper, generally does good service. It may be given in doses of a scruple, or half a drachm, and occasionally repeated.

L. *Pulvis e Cerussa compositus.*

Compound Powder of Ceruse.

Take of ceruse, five ounces; sarcocolla, one ounce and a half; gum tragacanth, half an ounce.

This composition is the *trochisci albi* of Razi, brought back to its original simplicity, with regard to the ingredients, and without the needless trouble of making it into troches. It is employed for external purposes; as in collyria, lotions, and injections, for repelling hot acrimonious humours; and in inflammations.

L. *Pulvis e Chelis Cancrorum compositus.*

Compound Powder of Crabs Claws.

Take of the tips of crabs claws prepared, one pound; pearls prepared, red coral prepared, each three ounces; mix them together.

Take of red coral, one ounce; black tips of crabs claws prepared, two ounces. Mix, and make them into a powder.

These powders have lost several of their ingredients, without any injury to their virtues; and possi-

bly they would still bear a farther reduction; for both the crabs eyes and claws are by themselves more effectual than any composition of them with pearls and coral.

The only virtues of these powders is to absorb acidities in the first passages; if no acid juices are contained there, they prove injurious rather than beneficial. Infants at the breast are frequently thrown into febrile distempers, from a redundancy of acrid humours; and in these cases, the absorbent powders are undoubtedly of use; but in the fevers of adults, it scarce ever happens that they can be of any service.

L. *Pulvis Bezoardicus.*

Bezoardic Powder.

Take of compound powder of crabs claws, one pound; oriental bezoar prepared, one ounce: mix them together.

Bezoar has hitherto been an ingredient in the foregoing composition; though, notwithstanding the addition it made to the price, it added nothing to the virtue of the medicine. The college of London have therefore very prudently directed an absorbent powder, without this costly article; and composed another, distinguished by its name, for the use of those who expect any particular virtues from it. The Edinburgh college have entirely expunged this unnecessary drug.

L. *Pulvis Contrayervæ compositus.*
Compound Powder of Contrayerva.

Take of compound powder of crabs claws, a pound and a half; contrayerva root, five ounces. Make them into a powder.

This

This powder was formerly directed to be made up into balls with water, and then called *Lapis Contrayervæ*, a piece of trouble now laid aside as needless.

This medicine hath a much better claim to the title of an alexipharmic and sudorific, than the two foregoing compositions.

E. *Pulvis Cretaceus.*

Take of prepared white chalk, four ounces; nutmegs and cloves, of each half a drachm; mix and make them into a powder.

N.B. This powder is a substitute for the troches against the heartburn.

E. *Pulvis e Jalappa compositus.*

Compound Powder of Jalap.

Take of powdered jalap root, an ounce; of powdered cream of tartar, two ounces; mix.

L. *Pulvis e Myrrha compositus.*

Compound Powder of Myrrh.

Take of rue leaves, dried, dittany of Crete, myrrh, each an ounce and a half; asa foetida, sagapenum, Russia castor, opopanax, each one ounce. Beat them together into a powder.

This is a reform of the *trochisci e myrrha*, a composition contrived by Razi against uterine obstructions. The powder may be taken from a scruple to a drachm or more, two or three times a day.

L. *Pulvis e Scammonio compositus.*

Compound Powder of Scammony.

Take of scammony, four ounces; calcined hartshorn prepared, three ounces. Grind them diligently together into a powder.

Here the scammony is divided by the earthy calx, and thus rendered somewhat more soluble, and

less adhesive; hence its purgative quality is promoted, at the same time that it becomes less griping. The dose is from fifteen grains to half a drachm.

This powder has been usually prepared with diaphoretic antimony and crystals of tartar (instead of the calcined hartshorn above directed), and called, from its first publisher, *Pulvis Cornachini*.

E. D. Take of cream of tartar and scammony, each equal parts. Make them into a powder.

This may be given to the quantity of a drachm or more. It appears probable, that neither the antimony nor tartar are of any farther use than as they divide the texture of the scammony; though Cornachini proposes notable advantage from some deobstruent quality in the tartar; and from the preparation of antimony, though it have no sensible operations, he expects some share of the same success which sometimes attends the rougher preparations of that mineral.

L. *Pulvis e Sena compositus.*

Compound Powder of Sena.

Take of sena, crystals of tartar, each two ounces, scammony, half an ounce; cloves, cinnamon, ginger, each two drachms. Powder the scammony by itself; and all the other ingredients together; then mix them.

L. *Pulvis Sternuatorius.*

Sternutatory Powder.

Take of asarum, marjoram, marum Syriacum, leaves dried, lavender flowers, dried, each equal weights. Rub them all together into a powder.

E. Pulvis Sternutatorius sive Cephalicus.

Cephalic Powder.

Take of the leaves of asarum, three parts; and of marjoram, one part; mix and make a powder.

The titles of these powders sufficiently express their intention. They are both agreeable and efficacious errhines, and superior to most of those usually sold under the name of herb snuffs.

E. Pulvis Stypticus.
Styptic Powder.

Take of alum, an ounce and half; and of the gum kino, three drachms; mix and make into a fine powder.

L. Pulvis e Succino compositus.
Compound Powder of Amber.

Take of amber prepared, gum arabic, each ten drachms; juice of hypocistis, balaustringes, japan earth, each five drachms; olibanum, half an ounce; strained opium, one drachm. Reduce them all together into a powder.

This powder is composed of the more unexceptionable ingredients of the *Trochisci e Carabe* of our former Pharmacopœia. The medicine, as now reformed, may be looked upon as an useful, and tolerably elegant astringent; though possibly the ingredient, which it receives name from, contributes little to its virtue. Two scruples of the composition contain one grain of opium.

E. Pulvis Sudorificus, sive Doveri.
Sudorific, or Dover's Powder.

Take of vitriolated tartar, four ounces and a half; opium, and ipecacuanha powdered, of each half an ounce. Mix, and make them into a very fine powder.

L. Pulvis e Tragacantha compositus.
Compound Powder of Gum Tragacanth.

Take of gum tragacanth, gum arabic, marshmallow root, each an ounce and a half: starch, liquorice, each half an ounce; double refined sugar, three ounces; grind them into a powder.

Pulvis Diatragacanthi.

Take of gum tragacanth, half an ounce; liquorice, starch, marshmallow roots, each half an ounce. Beat them altogether into a powder.

Both these powders are mild, emollient, glutinous medicines, and hence become serviceable in hectic cases, tickling coughs, strangury, heat of urine, some kinds of alvine fluxes, and other disorders proceeding from a thin acrimonious state of the humors, or an abrasion of the natural mucus of the intestines; they soften, and give a greater degree of consistency to the former, and defend the latter from being irritated or excoriated by them. The dose is from half a drachm to two or three drachms, which may be frequently repeated.

L. Hiera Picra.
i. e. The Holy Bitter.

Take of the gum extracted from Succotrine aloes, one pound; *cannella alba*, three ounces. Beat them separately into powder, and then mix them together.

This powder, in our former Pharmacopœia, besides the capital ingredient aloes, contained cinnamon, zedoary, asarum, cardamom seeds, saffron, and cochineal. The article here introduced in the room of these, was found, upon trial of a great many others, most effectually to cover the ill flavour of the aloes;

aloes; at the same time, that the quantity sufficient to effect this, communicates to the medicine the same degree of spicy warmth, as the aromatics in the old form. It should nevertheless seem, that the alteration made in this preparation may occasion some small change in its medical virtues: the singular qualities of the asarum, point out the intention of the contriver to have been not entirely to alleviate the intense bitterness and disagreeable smell of the aloes, or barely to warm the medicine with aromatics, but by the addition of pungent, penetrating substances, to promote and extend its action to farther purposes than the aloes alone was capable of answering. In this light, the modern practice considers this medicine, and prescribes it not simply as a purgative, but as a stimulus. In the following formula, the asarum is likewise rejected; but another pungent drug introduced in its stead.

L. *Species Aromaticæ.*
Aromatic Species.

Take of cinnamon, two ounces; lesser cardamom seeds, husked, ginger, long pepper, each one ounce. Beat them together into a powder.

E. *Pulvis Diaromaton five Species Aromaticæ.*
Aromatic Powder.

Take of nutmegs, lesser cardamom seeds, ginger, each equal parts. Beat them all together into a powder.

Both these compositions are agreeable, hot, spicy medicines; and as such, may be usefully exhibited in cold phlegmatic habits and decayed constitutions, for warming the stomach, promoting digestion, exciting the *vis vitæ*, and strength-

ening the tone of the viscera in general. The dose is from ten grains to a scruple and upwards. The first proves considerably the warmest.

L. *Species e Scordio sine Opio.*
Species of Scordium without Opium.

Take of bole Armenic, or French bole, four ounces; scordium, two ounces; cinnamon, one ounce and a half; storax strained, tormentil root, bistort root, gentian, dittany of Crete, galbanum strained, gum arabic, red roses, each one ounce; long pepper, ginger, each half an ounce. Reduce them into powder.

L. *Species e Scordio cum Opio.*
Species of Scordium with Opium.

Take of strained opium, three drachms. Dry it a little that it may easily pulverize; and add it to the foregoing species in the beating, that they may be all reduced into a powder together.

This is the species of Fracastorius's confection of diascordium, which has been hitherto kept in the shops in the form of an electary only, but is now judiciously directed in that of a powder also, both with and without the opium: when made into an electary, the medicine, in keeping, loses considerably of its astringency, in which consists great part of its medicinal virtue.

As this composition has in common practice been looked upon as a medicine of great consequence, and its effects determined by long experience, the college have made no farther alteration in its ingredients, than substituting red roses themselves to the sugar of roses, omitting sorrel seeds, which are cer-

certainly insignificant, and supplying the Lemnian earth, which with us is scarce ever met with genuine, by a proper increase of the bole. They have nevertheless given an elegant reform of it, in the *pulvis e bolo, cum et sine opio*.

General rules for making Powders.

I. Strict care should be taken, that no injured or impure parts of the ingredients be suffered to go into the powders; and that the plants should be first freed from all their stalks and decayed parts.

II. When the dry species are to be powdered, they should be sprinkled with a few drops of some proper water.

III. The moister aromatics should be dried with a very gentle heat, before they are powdered.

IV. Gums and other ingredients, whose texture unfits them to be ground alone, should be mixed with the drier substances, that they may pass the sieve together.

V. It is best to make powders in small quantities; and they ought to be kept in well-closed phials.

From the former London Dispensatory, and others.

Aromaticus Rosatum.

Rose Spice.

Take of exungulated red roses, fifteen drachms; of liquorice sliced, seven drachms; of aloeswood, and yellow sanders, of each three drachms; of the best cinnamon, five drachms; of cloves and mace, of each two drachms and a half; gum arabic, and tragacanth, of each eight scruples; of nutmegs, the greater cardamoms and galangal, of each one drachm; of Indian spikenard, one scruple; and

let them all be reduced into a powder to be kept for use.

This differs from the first Dispensatory of the college only in changing the lesser for the greater cardamoms, and is the first time that the musk and ambergrise have been quite rejected, though it was usually made without them before; as being generally so directed in common prescription, because of their offensiveness to many persons. Zwelffer gives this composition a very great character in his Augustan Dispensatory.

Pulvis Cornachini.

Cornachini's Powder.

Take of sulphurated diagrydium, ten drachms; of diaphoretic antimony, six drachms; of cream of tartar, two ounces and a half. Make them together into a powder.

Schroder, who also gives this prescription, tells us its author was so fond of it, as to write a whole treatise about it; wherein he recommends it almost in all cases that require purging. Its dose is from eight grains to one drachm.

Species Diambrae, cum Odoratis.

Species of Diambra, with Perfumes.

This is made by an addition to the aromatic species, of ambergrise, one drachm and half; and of musk, one drachm and half.

Pulvis ad Guttetam.

Powder against an Epilepsy.

Take of white dittany, mistletoe of the oak, contrayerva, Virginia snake-root, and male piony-roots, of the male piony-seeds, of burnt hartshorn, and elk's-hoof, of each

two drachms; of wild valerian-root, an ounce; of red coral, and human skull, of each three drachms; of jacinth-stone, a drachm; of occidental bezoar, a drachm and a half; of the oriental, a scruple; mix them into a powder; to which may be added at pleasure, of musk five grains, and of the leaves of beaten gold No. 30.

This hath its name from the French word *Goutte*, which signifies a convulsion, and in such cases it is given both to children and grown persons; from ten grains to half a drachm for children, and to a drachm to grown persons.

Pulvis Hali. Powder of Haly.

Take of white poppy seeds, ten drachms; of starch, gum arabic, and tragacanth, of each three drachms; of the seeds of purslain, marshmallows, and mallows, of each four drachms: of cucumber, melon, gourd, citruls, and quince seeds cleansed, of each seven drachms; of liquorice, three drachms; of white amber, two drachms; of sugar candy, the weight of the whole; and make them into a powder.

A general caution is given by all not to make too much at a time of this composition, because some of its ingredients render it liable to grow rancid. It is much better brought into a paste, and kept in lozenges. It is intended for an emollient, and to soften and heal any internal injuries; for which purpose it is prescribed in distempers of the breast, in spitting of blood, bruises, and disorders of the ribs. It cools the heat of urine, opens its passages, and helps in hemorrhages and stranguries. It may be given from half a drachm to two drachms.

Pulvis Comitis Warwicensis.

Earl of Warwick's Powder.

Take of scammony prepared with the fumes of sulphur, two ounces; of diaphoretic antimony, an ounce; of the crystals of tartar, half an ounce; make them all together into a powder.

It is directed to be made different ways both by Schroder and Zwelfer; but this is much the readiest, and what the shops are now accustomed to use. It is now become common in extemporaneous prescriptions, especially as a purge for children, to whom it is convenient to give, because of the smallness of the quantity requisite for a dose. It is a smart purge, and frequently given to children against worms from five to fifteen grains, and to grown persons from fifteen grains to half a drachm.

Pulvis Anticardialgicus.

A Powder against the Heart-burn.

Take white chalk, six ounces; crabs eyes and claws, of each an ounce and half; sugar candy, half an ounce; oil of nutmegs, six drops; make them into a fine powder. Some put to it six drachms of bole.

About a drachm of this in a draught of cold water is an infallible temporary cure of the complaint its title expresses; and its frequent use, if often wanted, cannot be attended with any harm.

Pulvis Athriticus, Ducis Portlandi.

The Duke of Portland's Gout Powder.

Take the roots of round birthwort and gentian, the herbs lesser centaury, groundpine and germander of each equal quantities; mix and make them into a fine powder.

Of this powder, a drachm is to be

be given every morning falling in a cup of wine and water, broth, or tea, and the patient must fast an hour and a half after taking each dose. Thus continue it for three months, without interruption: then diminish the dose one fourth for three months longer: after which give half a drachm for seven months more. After the first year, half a drachm is to be taken only every other morning.

As it operates insensibly, the patient will be about two years before he perceives any considerable advantage. It is said to work sure, though slowly. The patient need not confine himself to any particular diet; sobriety, an abstinence from spirituous liquors and high fauces are all that are required.

This is a warm medicine, proper only in a cold, phlegmatic, relaxed, and emaciated habit, with impoverished juices. To continue it in cases where it has restored health, or to give it to those who are strong, will produce giddyness, apoplexy, &c.

Pulvis Arthriticus Turneri.

Turner's Gout Powder.

Take turpeth, hermodactyls, fena, scammony, and dwarf-elder seeds, of each equal parts; powder and mix them, *f. a.*

This is a good smart purge, and its repetition at a proper distance, (suppose a month,) will go a great way to prevent the gout, by keeping the joints and extreme parts clear from such lodgments of humours, which in process of time occasion a fit. The dose is from fifteen grains to two scruples.

Pulvis Basilicus.

The Royal Powder.

Take diagrydium, ceruse of an-

timony, cream of tartar, and *mercurius dulcis*, of each equal parts; powder these separately and mix them, *f. a.*

This is one of the best purges for gross-bodied children, that are apt to breed worms, and have large bellies; for though the ingredients are efficacious, its operation will be mild and safe enough. It wonderfully clears the bowels of slime, and fetches out those viscid humours which obstruct the mesenteriac glands, and in a great measure the lacteals themselves; which is often the case in children, and is attended with a hard belly, stinking breath, frequent fevers, and a decay of strength in the lower parts. Those slight intermittents which such are subject to, will much sooner be cured by such a purge than by the bark; for the purge actually reaches and wears away the cause, but the bark pens it up; and, by curing only while such restriction continues, gives room for a return with much greater aggravation. It may be given to children from six to fifteen grains, and to grown persons from fifteen grains to two scruples, in a bole, or mixed with some syrup; for the weight of the mercury will sink it so soon in a thin vehicle, as to subject it to be lost, especially as its bulk is hardly discernible at the bottom of a cup or glass.

Pulvis Cantianus.

The Countess of Kent's Powder.

Take the black tips of crabs claws, and contrayerva root, of each two ounces; pearls, red and white coral, crabs eyes, all levigated with juice of lemons, of each an ounce; white amber and crystals levigated with rose-water, of

of each an ounce ; hartshorn burnt to the utmost whiteness, and levigated with citron-juice, sharpened with spirit of vitriol, an ounce ; occidental bezoar and earth of Lemnos, of each half an ounce ; ceruse of antimony, two ounces ; ambergrise, a drachm and a half : musk, half a scruple ; let all be well mixed together, and made up into a paste with the jelly of vipers skins, tinged with saffron, and form it into little balls, which dry and keep for use.

The levigation of some of the alkaline ingredients with acids is what is very unusual, but, for the intention of a sudorific, may with good reason be designed, because the points of the acid may stick in such manner in the alkaline body, as has been described in the preceding part concerning sublimate and *mercurius dulcis*, so that when they come into the small vessels they give them gentle vellications, and at the same time divide and make thinner the viscid parts of the juices, which are both the necessary requisites to raise a sweat. And that acids joined to alkalies may make a *tertium quid* to this purpose, will not at all appear strange to one who considers the sensible qualities of such a mixture, and not only how they differ from what appeared before in either separately, but with what a peculiar pungency the mixed parts affect the tongue. But let the rationale of this stand how it will, this is vastly a better composition than that of the Galcoign's powder for the purpose of a diaphoretic ; this will in reality promote sweating. The usual dose is from half a scruple to half a drachm, in any convenient vehicle.

Pulvis febrifugus certus.

The sure Febrifuge Powder.

Take Virginia snake-root two drachms ; contrayerva, gentian, zedoary, carduus, and citron seeds, occidental bezoar, of each a drachm ; Peruvian bark, four ounces ; make all together into a fine powder, *f. a.*

In some cases where the bark wants such warm assistants, this makes a good medicine, though the three last ingredients may be as well left out. A drachm of this is directed for a dose, and to be repeated every four hours, between the fits, until they quite disappear.

Pulvis Martialis compostus.

Compound Powder of Steel.

Take steel prepared six drachms ; aloes-wood, nutmegs, of each half an ounce ; cloves and mace, of each two drachms ; sugar, two ounces ; powder and mix, *f. a.*

This stands greatly commended for a good medicine in all cachexies both in men and women, but particularly in those from uterine disorders. It cleanses the womb, promotes the menses, warms the blood, and wonderfully restores decayed and disordered constitutions ; to be taken every morning in a glass of white-wine, from one to two drachms. If a little saffron be added it makes it better, and especially for girls from six years of age to the first eruption of the menses ; who are pale, and have all the marks of what is called the green-sickness ; for so young does it many times appear.

Pulvis purpureus.

The purple Powder.

Take burnt hartshorn, white amber,

amber, red coral, pearl, of each an ounce ; crabs eyes and claws, of each two ounces ; saffron, half a scruple ; cochineal, two scruples ; make all into a paste, after they are finely levigated, with jelly of hartshorn ; and form it into little balls, which dry for use.

This is better than the Gascogn's powder, and some prescribe it in its stead.

Pulvis Sternutatorius.

Sneezing Powder.

Take marjoram, rosemary-flowers, betony, and flowers of lilies of the valley, of each three drachms ; nutmegs, two drachms ; volatile sal ammoniac, a drachm ; powder, and keep close stopp'd.

This is recommended in the head-ach, giddiness, deafness, and many other disorders, as palsies, lethargies, and the like. It may be taken at any time at pleasure, but it is best at night, and soon after first rising.

Pulvis Vermifugus.

A Powder against Worms.

Take hartshorn, rhubarb, coralline and worm-feed, of each equal parts : mix and powder, *f. a.*

What the hartshorn has to do here cannot well be imagined, but the other ingredients are good to the purpose signified by the title. It is a proper medicine for children, and may be given from ten grains to half a drachm, to be continued once a day for some time.

Pulvis solutivus. A solutive Powder.

Take tartar of vitriol crystalized, an ounce ; cream of tartar, half an ounce ; resin of jalap, two drachms ; root of jalap, half an ounce ; mace, a drachm. Mix, *f. a.*

The resin ought to be rubbed very fine, before it be mixed with the rest, in a mortar a little greased at the bottom. The whole is a very good purge, and will not only well cleanse the first passages, but stimulate enough to fetch out many peccant humours from the adjacent glands and viscera, and assist the discharge by urine ; and therefore do service in dropries and disorders from corpulency. Its dose is from a scruple to a drachm.

Pulvis Hydragogus.

A Powder to purge Water.

Take cream of tartar, an ounce ; jalap, six drachms ; dwarf elder seeds, half an ounce ; gamboge, a drachm and a half ; nutmegs, two drachms. Mix them into a powder.

This is an admirable good medicine for the purpose its title expresses. It brings down the swellings in dropries and cachectic constitutions ; and it is also a good purge in the jaundice, or any obstructions of the viscera which require forcible means to dislodge them. This may be given from a scruple to a drachm in white wine.

Pulvis catharticus contra Vermes.

A purging Powder against Worms.

Take worm-feed, an ounce ; coralline, and Mechoacan, of each two drachms ; *mercurius dulcis*, two drachms and a half ; resin of jalap, a drachm ; aniseeds, a drachm and a half ; sugar half an ounce. Mix all into a fine powder, *f. a.*

The *mercurius dulcis* ought to be rubbed fine by itself, and likewise the resin ; and when the others are reduced to fine powder, all to be mixed together. It is an admirable purge for children that are suspected

suspected to have worms, and it will cleanse away that slime in the bowels which breeds them, hardens the belly, produces putrefaction, and gives a stinking scent to the breath. The dose is from fifteen grains to a drachm.

Pulvis Epilepticus.

Powder against the Epilepsy.

Take wild valerian, and piony roots, of each an ounce; seeds of rue, myrrh, castor, white amber, of each half an ounce; native cinnabar, two ounces. Mix, *f. a.*

This is an efficacious composition for what its title promises. In taking it caution must be used that the cinnabar be not lost, as it may easily be in a thin vehicle, because its weight soon carries it to the bottom; it is therefore best in the form of a bole, or electary, or in a thick syrup. It is also much to be depended on in children's convulsions, together with purging, from what cause soever they proceed; but especially from any hereditary impression or distemper of the head: to them it may be given from ten grains to a scruple, and to grown persons from a scruple to a drachm at a dose.

Pulvis Vermifugus.

Powder against Worms.

Take tin reduced to a powder, as directed in the foregoing part, coralline, and worm seed, of each an ounce; safin and saffron, of each a drachm. Mix, *f. a.*

This is almost an infallible re-

medy against worms. This composition does not purge, and therefore may be given almost in any circumstance, without prejudice, from a scruple to two drachms every night, in any convenient vehicle.

Pulvis catharticus pro Pueris.

A purging Powder for Children.

Take rhubarb, resin of jalap, and calomel, of each equal parts; loaf-sugar, the weight of the whole.

These ought all to be powdered separately, and very fine. The sugar is a sufficient corrector; and the whole makes not only a pleasant, but an efficacious and safe purge for all children, for they are always more or less subject to slimy humours, and from thence proceed worms in the belly, which this cleanses away, and destroys. It may be given from ten grains to a scruple. To grown persons likewise, in many cases, it is a good cathartic, and may be increased from one to two scruples in a bole, or mixed with a syrup.

Pulvis Dentrificus.

A Powder to cleanse the Teeth.

Take pumice-stone, cuttle-fish bone, of each an ounce; tartar of vitriol, two drachms; musk, a scruple; oil of rhodium, three drops. Mix all into a fine powder, *f. a.*

This makes a very good dentrifice.

S E C T. IX.

Of Balsams and Oils.

THE remaining part of the officinal Pharmacy consists of such things as are used only externally, being chiefly oils, ointments, and plasters; amongst the first of these there are some made by expression, used also internally, as the oil of sweet almonds, and some others.

The oils drawn by expression are from nuts and seeds; and those for internal use are to be drawn cold, because the fire, or any warmth, which facilitates the oily parts to flow out in greater quantities, is supposed to communicate somewhat to such oils that damages their virtues, considered as softners, and likewise forces out somewhat that gives them much fouler scents than when drawn cold.

The common way of prescribing these oils for internal uses hath been alone, or in linctuses; but a much neater way is in emulsion. But although the college direct these to be drawn from many materials, yet they are none of them in use, besides that of sweet almonds, that called castor, and linseeds, internally; and the *oleum macis*, *laurinum*, and *palme*, externally; though the last is not taken notice of in Dispensatories, but brought much into practice by those travellers who have learned its use in the countries where it is made.

These expressed oils, are not in their common state, miscible either with vinous spirit, or with water; but by means of certain intermedia,

they will unite with either. Thus, by the intervention of volatile alkaline spirits, gum; or mucilage, they unite with water into a milky fluid: by means of fixed alkaline salts, they are changed into a soap, which is miscible either with water, or spirituous liquors.

If expressed oils become rancid, they lose their soft, lubricating, and relaxing quality, and are changed into a sharp acrimonious one, and in this state, instead of allaying, they occasion irritation, instead of obtunding corrosive humours, they corrode and inflame.

The next class of oils are such as are made by infusion or decoction, wherein some herb or flower hath its virtues drawn out by the oil. Of those in use are the *oleum rosaceum*, *chamæmelinum*, *hyperici*, *liliorum*, and *sambucinum*; and these require a different method in their making, upon the score of some different qualities in the things themselves; as the scented flowers, particularly the roses, do better by long insolation, only in such a warmth as the sun will give, because much boiling would exhale their more fragrant parts; but oils impregnated with green herbs, as chamomile and elder, require long boiling before they receive that green colour which is desired in them. And it is to be observed concerning those things which require boiling, that no oils will bear such management without turning black, any longer than

there remains some aqueous humidity, which is herein supplied from the juice of the herbs; when therefore they grow crisp, for want of farther moisture, the process is finished.

There are likewise directed in the Dispensatory many compound oils, to be made after the same manner, by infusion or decoction; and the like rules are to be observed in them as in the simple ones. But so few of these are made or prescribed, that there is hardly any thing in this division worth our notice, but the Lucatellus's balsam, with some others under the same title, which happen to be placed amongst them.

A balsam, or what is usually called so, is somewhat thicker than a common oil; and sometimes the name is also applied to such substances as are of the consistence of an unguent, as Lucatellus's balsam.

L. D. *Balsamum Guaiacinum.*
Balsam of Guaiacum.

Take of gum guaiacum, one pound; balsam of Peru, three drachms; rectified spirit of wine, two pints and a half; dissolve the gum, and then filter.

This is a very commodious way of exhibiting gum guaiacum. The dose is from twenty to forty drops, three or four times a day.

Balsamum Polychrestum.

A Balsam of many Virtues.

Take two pounds and a half of spirit of wine; infuse in it with a gentle heat, and often stirring, twelve ounces of gum guaiacum; and lastly, add a spoonful of Peruvian balsam, so that the whole may mix together into a balsam.

This is an efficacious medicine

for many good purposes, but particularly in rheumatisms. The college have named it *Balsamum Guaiacinum*, (which see.) It will likewise answer all the ends that are aimed at by the wood diet-drinks; it dries up or dissipates, by insensible transpiration, all superfluous moistures, is good in all venereal and scrophulous cases, and very certainly wears off an old gleet, where the virulence has been previously removed. It will change an aqueous vehicle milky, but may conveniently enough be given in any liquor; and it is usually taken from twenty to thirty drops, two or three times in a day.

Balsamum viride.

The green Balsam.

Take of linseed-oil, half a pound; gum elcni, two ounces; of verdigrise in powder, two drachms. Mix and boil together over a gentle heat, so as to make them into a balsam, *f. a.*

From Bates.

Balsamum Anodynum.

The Anodyne Balsam.

Take Castile soap, one ounce; opium, half an ounce; camphor, six drachms; saffron, one drachm; spirit of wine rectified, eighteen ounces. Digest in a sand-heat ten days, shaking it between whiles till the last day or two; then pour it off clear for use.

It is a most excellent medicine, not only for procuring ease in the most racking extremities of pain, but for assisting likewise in the discharge of such humours as occasion those pains. In nervous colics it is of great service; and it cleanses all the viscera and glandular parts. It is good even in the jaundice, and such distempers of the urinary

passages as proceed from the obstruction of gravel, or slimy humours. But its greatest excellency is in allaying the tortures of the gout, promoting the transpiration of the peccant irritating matter, and carrying off the fit; insomuch that, with a few proper helps, this distemper is hardly so obstinate in any person soever, but he may hence meet with great relief, if not a thorough riddance from it. Inwardly, it may be given from twenty drops to fifty at a dose; and being outwardly applied to the pained part, it does service, a rag being dipped in it, and laid thereon.

Balsamum Apoplecticum.

Apoplectic Balsam.

Take the distilled oil of cinnamon, cloves, lavender, lemons, marjoram, mint, rue, rosemary, sage, rhodium, and wormwood, of each twelve drops; of amber, six drops; bitumen Judaicum, two drachms; oil of nutmegs by expression, one ounce; balsam of Peru, as much as is sufficient to make all together into a smooth balsam.

This warms and enlivens the nerves, being either smelled to, or rubbed upon the temples, or any other convenient part: it does much good also to paralytic limbs, by rubbing them well with it. It has been in fashion to wear in little ivory boxes and cane-heads; but it has, in such respects, given place to more modish contrivances. In distempers of the head and nerves, it is likewise directed to be given inwardly, from three to six drops in a bole, or electary.

Balsamum Succini.

Balsam of Amber.

Take white amber, two ounces

in fine powder; oil of turpentine, six ounces; let them stand in warm digestion till the amber is wholly incorporated.

This is commended as an excellent nervous medicine, and is said to be of service in vertigoes, epilepsies, palsies, and also in hysterical affections, given upon sugar, or any proper vehicle, from five to fifteen drops; but its greatest use is as a detergent and vulnerary.

Balsamum Sulphuris Knæphelii.

Knæphelius's Balsam of Sulphur.

Take liver of sulphur, four parts; linseed oil, three parts; let them simmer together till the sulphur is dissolved; then leisurely draw it over in a retort, mixing the oil with half the quantity of colcothar of vitriol, and drawing it over again in another retort; and the oil, which arises the second time, mix with half the quantity of oil of aniseed for use.

Balsamum Sulphuris Rulandi.

Rulandus's Balsam of Sulphur.

Take flowers of sulphur, one ounce; oil of nuts, six ounces; strong wine, two ounces; digest for eight hours, sometimes shaking the vessel; then simmer it over a gentle heat till the wine is evaporated, and pour off the clear oil for use.

This very little differs from the common balsam of sulphur, described in the foregoing part amongst the preparations, though it comes to us as a celebrated antidote.

L. D. Oils by Expression.

Ol. Ricini. Oil of the common Palma Christi seeds, commonly called Castor Oil.

This oil is prepared by decoction,

tion, and by expression: the first affords most of the oil, but the latter, the most agreeable.

To prepare it by decoction, bruise the decorticated seeds, in a marble mortar, and tie them in a linen cloth; put this packet into a proper vessel, with seven or eight times as much water, and set them over the fire to boil; thus the oil will be separated, and float on the surface of the water, skim it carefully off, and continue to boil until no more oil appears.

To prepare it by expression; pound the decorticated seeds well in a marble mortar, tie up the mass in a new strong canvas bag, then wrap the parcel in a clean hair cloth, and put the whole into a press between two iron plates; and thus force out as much of the oil as you are able.

This oil is mild, and insipid almost, yet a slight stimulus is perceived in the throat on swallowing it. It is called *Alkerva* by the Arabians, *Oleum Ricini* by the Latins, *Ol. Palmæ Christi* by the French, and *Oil of Castor* by the English. The Hebrews and Greeks called it the *Oil of Kik*.

Between the years 1750 and 1760, this oil was introduced into England and obtained in practice. It is an excellent medicine in bilious complaints, in which it effectually purges without sensibly irritating; in obstinate constipations of the bowels, this oil is most happily effectual, hence of singular service in all colicky complaints which require purging; in the beginning of most nephritic disorders it should not be omitted; few cases occur in warm and bilious constitutions, which require purging, in which this oil will not prove useful. It is

efficacious either by the mouth, or glysterwise, also if rubbed on the bellies of infants. It lubricates the bowels at the same time that it solicits them to discharge their contents. In leucophlegmatic habits it is not advisable, as it is very cooling: but, for removing the meconium from the intestines of infants; safely purging in colicky complaints; cooling, and easing the bowels, in fevers; correcting, and carrying off bilious acrimonies; relieving in the thrush, cramps, tetanus, benign and venereal gonorrhoeas, fluor albus, gout, &c. it is eminently useful.

The dose to an infant may be a tea-spoonful, to an adult from one to three table-spoonfuls, as required. It is commodiously taken with a little peppermint water; or for children, mixed with sugar or honey.

Ol. Amygdalinum. Oil of Almonds.

Let fresh almonds, either bitter or sweet, be pounded in a stone mortar; then let the oil be forced out of them by a press, which must not be made hot.

In the same manner the oil must be expressed from linseed and mustard-seed.

Oleum Chrysomelinum.

This is made by the expression of apricot kernels; after which manner likewise is procured oil from the kernels of cherries, peaches, pine-nuts, pistachio nuts, and plums: as also from the seeds of oranges, hemp, bastard saffron, called *cnicus*, citrons, cucumbers, gourd, citruls, dwarf-elder, henbane, lettuce, linseed, melons, poppies, parsley, horse-radish, rape, the greater cataputia, ricinus (call-

ed *Oleum Cicinum*, *Ricinum*, and *de Kerva*), *ſeſamum*, called *Seſaminum*, muſtard, and grape-ftones.

Notwithſtanding the officinal Diſpenſatories, eſpecially the moſt ancient, abound with oils of this kind, and the preſent college Diſpenſatory, in conformity thereto, retains ſome notices of them, yet they are ſcarce any of them made, beſides the oil of almonds, caſtor, and linſeed, or hardly any of them ever met with in preſcription; an oil indeed from muſtard-ſeed hath of late been extolled by ſome particular perſons, but without foundation,

Oleum Laurinum. Oil of Bays.

Take of bay-berries ripe, and gathered not many days, any quantity; after bruſing them, boil them in a ſufficient quantity of water, and force out their oil with a prefs; beat again the remaining ſæces, and pour hot water upon them as before, and again prefs out all that you can; then ſeparate the oil that ſwims upon the water for uſe, *f. a.*

Oxyrrhodium.

This is made of four or five parts of oil of roſes, and one of vinegar.

The former of theſe two is a very common medicine in the ſhops, but the latter never made but on extemporaneous preſcription, as it may very ſoon and eaſily be.

E. D. *Oleum Amygdalarum.*

Oil of ſweet Almonds.

Take any quantity of ſweet almonds newly dried and blanched; having bruſed them in a marble mortar incloſe them in a canvas bag, and gradually force out the

oil by means of a prefs, without the aſſiſtance of fire.

This is called the oil of ſweet almonds improperly; for this name ſeems to imply a diſtinction betwixt the oil of ſweet and bitter almonds; whereas there is no apparent difference, and they are, in practice, uſed promiſcuouſly, unleſs that from the difference of their price the bitter is choſen. The more proper name is ſweet oil of almonds, which may comprehend both. The blanching of the almonds previous to their being preſſed, is unneceſſary, their peel not affording any ſubſtance to deprave the oil by this treatment.

Oleum Semin. Lini. Oil of Linſeed.

Oleum Sinapi. Oil of Muſtard-feed.

Theſe oils are obtained in the ſame manner as that from ſweet almonds, only with theſe the iron plates of the prefs are to be moderately heated.

Oleum Olivarum.

Oil of Olives.

Oleum Laurinum. Oil of Bays.

Oleum Macis. Oil of Mace.

Theſe oils are imported from abroad.

E. D. *Oleum Camphoratum.*

Camphorated Oil.

Takes of oil of olives two ounces; camphor, half an ounce. Diſſolve them.

Oils by Infuſion and Decoction.

L. *Oleum Hyperici.*

Oil of St. John's Wort.

Take of the flowers of St. John's wort, full blown, freſh gathered, and carefully freed from the cups, four

four ounces; oil olive, two pints. Pour the oil upon the flowers, and let them stand together, till the oil is sufficiently coloured. After the same manner are prepared,

Oleum Absinthites.

Oil of Wormwood Tops.

Oleum Anethinum.

Oil of Dill Leaves.

Oleum Chamæmelinum.

Oil of Chamomile Flowers.

Oleum Liliorum Alborum.

Oil of White Lily Flowers.

Oleum Rosarum Rubrarum.

Oil of Red Roses.

Oleum Rutaceum.

Oil of Rue Leaves.

L. *Oleum e Mucilagibus.*

Oil of Mucilages.

Take of marshmallow root, fresh, half a pound; linseed, fenugreek seed, each three ounces; water, two pints; oil olive, four pints. Bruise the roots and seeds, and gently boil them in the water for half an hour: then add the oil, and continue the boiling till all the water is wasted; afterwards let the oil be carefully poured off for use.

Expressed oils do not act upon, or unite with the gummy and mucilaginous parts of vegetables; hence this oil contains nothing of the mucilage with which the ingredients abound.

L. *Oleum Sambucinum.*

Oil of Elder.

Take of elder flowers, 1 pound; oil olive, two pints. Boil the flowers in the oil, till they are almost crisp; then press out the oil, and set it by till the faces have subsided.

L. *Oleum Viride.*

Green Oil.

Take of bay, rue, marjoram,

sea wormwood, chamomile leaves, fresh, each three ounces; oil olive, two pints. Bruise the herbs, and gently boil them in the oil till they are almost crisp; then press out the oil, let it stand to settle, and afterwards pour it off from the sediment.

All the foregoing oils are designed for external applications. Their general virtues are to soften and relax; by which qualities, they prove serviceable in tension, rigidity, contractions, and inflammations of particular parts; and in pains proceeding from these causes. As several of them contain those parts of the ingredients in which their virtues principally reside, they are hence supposed capable in some degree of exerting those virtues when externally applied: thus, the oil of wormwood, rubbed on the stomach and umbilical region, is said to excite appetite, strengthen the viscera, and kill worms; that of chamomile flowers, to be a warm discutient and resolvent; those of St. John's wort flowers and dill leaves, to be peculiarly grateful to the nerves, to give great relief in all kinds of pains and weariness, to resolve tumors, and heal wounds and ulcers; the oil of mucilages, to be softer and more emollient than common oil; but in this instance, general opinion is not true; that of rue, to be of singular efficacy against schirrous swellings, and hardness of the spleen, &c. It is presumed, however, that at present there are few who expect much more from these preparations than from common oil itself, which has the advantage of being less offensive: the resinous parts of vegetables, however active when taken inter-

nally in a proper form, can scarce be supposed, when combined with a large quantity of oil, to have any considerable effect in external applications.

Oleum Rosaceum. Oil of Roses.

Take of the exungulated red roses, not quite blown, and bruised in a marble mortar with a wooden pestle, four ounces; of clean oil of olives a pound; expose them to the mid-day sun in a glass vessel, well stopp'd, for a whole week, and shake them together every day; then gently simmer in a bath-heat, and press out the oil: put in fresh roses, which manage after the same manner, and repeat the process a third time, and then let them stand together for forty days, at the expiration of which set by the oil for use, without pressing out the roses.

Oleum Cheirinum, sive Keirinum.

Oil of Wall Flowers.

This is made of the flowers and oil, in the same manner as that of dill.

Oleum sive Balsamum simplex Tysperici. Simple Oil or Balsam of St. John's Wort.

This is made from the oil of the St. John's wort seeds, ground in a mill and pressed out, with the addition of St. John's wort flowers, duly macerated together in the sun.

Oleum Lumbricorum.

Oil of Worms.

Take of earth-worms, half a pound; first wash them in several waters, and then in white-wine, wherein let them stand a hour; then pouring off the wine put

them into a double vessel, and add to them two pounds of oil, and of white-wine half a pound; boil to the consumption of all the wine, and strain the oil through a linen cloth for use.

Oleum Nicotianæ. Oil of Tobacco.

Take of tobacco juice, and common oil, each equal parts, and boil them in a bath heat, *s. a.*

Oleum Papaveris. Oil of Poppies,

This is made of the flowers, heads, and leaves of garden poppies, and oil of olives, in the same manner as the oil of dill.

Oleum Rutacenum. Oil of Rue,

Is made of the bruised herb, and olive oil, as the oil of roses.

Oleum Sabinae. Oil of Savin,

Is made after the same manner.

Oleum Sambucinum. Oil of Elder,

Is made from the flowers and oil, as the oil of roses.

There are many more simple oils directed to be made, much after the same manner, in some of the old Dispensatories, which are here neglected as things quite out of use; some also here retained are seldom to be met with, either in prescription or the shops; particularly the *cheirinaum*, *euphorbii*, *nardinum*, *nicotianæ*, and *papaveris*. The double vessel made use of, as directed in these operations, is the vessel containing the medicine, set in another full of water and receiving its heat from that, and not immediately from the fire, which much softens it. The same contrivance is likewise to be understood, wherever a bath heat, or that of *balneo Mariae*, is ordered.

Com-

Compound Oils, by Infusion and Decoction.

Oleum Exceftrenfe. Exeter Oil.

Take of wormwood, the leffer centaury, eupatorium, fennel, hyffop, bays, marjoram, favin, fage, and thyme, of each four ounces; of fouthernwood, betony, ground-pine, and lavender, of each fix ounces: of rofemary, one pound; of chamomile and broom flowers, of cummin and funugreek feeds, of black and white hellebore-root, and of lemon peels, of each four ounces; of euphorbium, muftard, caftor, and pellitory, of each one ounce; of oil, fixteen pounds; and of wine three pounds. Let the herbs, flowers, feeds, and euphorbium be bruifed; the roots, peels, and caftor sliced, and macerated together twelve hours, in a bath heat, with the wine and oil: then after a gentle boiling, till the wine is all confumed by evaporation, let the oil be ftrained out and kept for ufe.

Oleum Mandragoræ.

Oil of Mandrake.

Take common oil, two pounds; of the juice of mandrake apples, or, in their defect, of its leaves, four ounces: of the juice of white henbane, two ounces; of the juice of black poppy heads, three ounces; of the juices of violets and young hemlock, of each one ounce; of opium and ftorax, of each half an ounce. Let the juices, with the oil, be expofed to the fun; and after ten days ftanding, boil them leifurely to the confumption of the juices; then fprinkle in the opium finely powdered; and work in the ftorax firft diffolved in a fufficient quantity of turpentine, *f. a.*

It is intended againft inflamma-

tions, to procure fleep, and eafe pains in the head, by wafhing the temples and noftrils with it; but it is rarely prefcribed; and hardly to be met with ready made.

Empyreumatic Oils.

L. *Oleum Buxi.*

Oil of Box.

Distil pieces of box wood, in a retort, with a fand heat gradually increafed; the oil will come over, along with an acid fpirit, which is to be feparated by a funnel.

Oleum Guaiaci.

Oil of Guaiacum.

Put any quantity of chips of guaiacum, into an earthen long neck or a glafs retort, and diftil either in a fand bath or an open fire, increafing the heat by degrees. At firft an acid liquor will come over, afterwards in a light red oil, and at length, in the utmoft degree of fire, a thin black oil, which finks through the other liquors to the bottom of the receiver.

Oils may be obtained after the fame manner from every kind of wood.

The oils obtained by this treatment from different woods and plants, are nearly of the fame qualities: they have all a very difagreeable acrid tafte, and a burnt finking fmell; without any thing of the peculiar flavour, tafte, or virtues of the fubject which afforded them. By redifilling them a number of times along with water, they become lefs and lefs difagreeable; and in this ftate have been given from ten to twenty drops, as anodynes and diaphoretics. Some have entertained a very high opinion of them in epilepfies, in hysteric and fpafmodic disorders: in

in these cases they may possibly be of some service, though their real merit falls far short of what is promised of them. The present practice rarely employs these oils any otherwise than for external purposes, as the cleanting of foul bones, for the tooth-ach, against some kinds of cutaneous eruptions, old pains and aches, and the like; and for these, not very often.

L. *Oleum Lateritium.*
Oil of Bricks.

Heat bricks red hot, and quench them in oil olive, till they have soaked up all the oil: then break them into pieces small enough to be conveniently put into a retort; and distil with a sand heat gradually increased: an oil will arise, together with a spirit, which is to be separated from it as in the foregoing process.

This preparation has had a place in most Dispensatories, under the pompous names of *oleum philosophorum*, *sanctum*, *divinum*, *benedictum*, and others, as improper as that under which it stands above. It is really oil olive, rendered strongly empyreumatic by heat: the spirit, so called, is no more than phlegm, or water, tainted with the burnt flavour of the oil. It has been celebrated for sundry external purposes, particularly against gouty and rheumatic pains, deafness and tingling of the ears, &c. and sometimes likewise given inwardly. But common practice seems to have now entire rejected this loathsome remedy.

L. *Oleum Petrolei Barbadosis.*
Oil of Barbadoes Tar.

Distil Barbadoes tar with a sand heat; and an oil will arise, toge-

ther with a spirit which is to be separated from it.

This oil is intended for the same purposes as the foregoing ones. It is somewhat less disagreeable, tho' very acrid and stimulating.

L. *Oleum Terebinthinae Aethericum;*
& Empyreumaticum sive Balsamum.
The Ethereal Oil of Turpentine,
and the Empyreumatic Oil or Balsam.

Distil the essential oil of turpentine in a retort, with a very gentle fire, until what remains has acquired the consistence of a balsam.

Balsam of turpentine may likewise be obtained from the yellow resin left after the distillation of the essential oil: upon distilling this in a retort, at first a portion of thin oil arises, which is to be kept by itself, and afterwards a thick balsam: there remains in the retort a blackish resin, called colophony.

The oil here called ethereal does not considerably differ in specific gravity, smell, taste, or medical qualities, from the cheaper one obtained by the addition of water in the common still; nor are the empyreumatic thin oil and balsam of any great esteem in practice.

L. *Oleum Copaivae compositum.*
Compound Oil of Balsam of Copai-
va.

Take two pounds of balsam of Copaiva, and four ounces of gum guaiacum. Distil them in a retort, continuing the operation till a pint of oil is come over.

This mixture, undistilled, proves, a medicine of considerable efficacy in rheumatic cases, &c. In distillation, the guaiacum gives over little, serving chiefly for the same purpose

purpose that bricks do in the *oleum lateritium*.

Balsamum Anodynum, vulgo Guidonis.

The anodyne, commonly called Guido's Balsam.

Take of tacamahaca, Venice

turpentine, each equal parts. Put them into a retort, whereof they may fill two thirds, and distil with a fire gradually increased. Separate, according to art, the red oil or balsam, from the liquor that swims above it.

S E C T. X.

Emplastra, Unguenta, Cerata, Epithemata.

Plasters, Ointments, Cerates, Epithems.

General rules for making Plasters, &c.

I. **S**UCH plants as are employed in these compositions, ought to be fresh, juicy, and well bruised; unless they are ordered otherwise.

II. Boil the herbs till they are almost crisp, taking care to prevent the matter from contracting a black colour: afterwards strain off the liquid, and set it on the fire again, that all the aqueous moisture may exhale.

III. Metallic powders are to be boiled first with the oils and unctuous ingredients, till duly united. Such gums as are readily soluble,

and also turpentine, are to be added towards the end of the operation.

IV. Plasters require the addition of water, till they have acquired a due consistence.

The use of the water is, to keep the plaster from burning and growing black. Such water, as it may be necessary to add during the boiling, must be previously made hot: cold liquor would not only prolong the process, but likewise occasion the matter to explode and be thrown about with violence, to the great danger of the operator: this accident will equally happen upon the addition of hot wine, if the plaster is extremely hot.

Plasters.

Emplastrum Anodynum.
Anodyne Plaster.

Take of white resin, eight ounces: tacamahaca in powder, galbanum, each four ounces; cummin seeds, powdered, three ounces; black soap, four ounces. Melt the resin and the gums together; then add the seeds and the soap, and

make the whole into a plaster, according to art.

This plaster sometimes gives ease in slight gouty and rheumatic pains, which it is supposed to effect by preventing the afflux of humors to the part, and putting in motion and repelling such as already stagnate there.

E. Em-

E. *Emplastrum Anti-Hystericum.*
Antihysteric Plaster.

Take of strained galbanum, twelve ounces; assa foetida and yellow wax, each six ounces; white resin, three ounces. Mix and make them into a plaster, according to art.

This plaster is applied to the umbilical region, or over the whole abdomen, in hysteric cases; and sometimes with good effect.

L. *Emplastrum Attrahens.*
Drawing Plaster.

Take of yellow resin, yellow wax, each three pounds; tried mutton suet, one pound. Melt them together, and whilst the mass remains fluid, pass it through a strainer.

E. D. *Emplastrum Cercum sive Attrahens.*
Waxen Plaster.

Take of yellow wax, two pounds; of white resin half a pound; hogs lard a pound. Melt them on a gentle fire, then continually stir it until it is cold.

This and the above is calculated to supply the place of melilot plaster; whose great irritation, when employed for the dressing of blisters has been continually complained of. Indeed plasters of any kind are not very proper for this purpose: their consistence makes them sit uneasy, and their adhesiveness renders the taking them off painful. Cerates, which are softer and less adhesive, appear much more eligible.

L. *Emplastrum Cephalicum.*
Cephalic Plaster.

Take of Burgundy pitch, two pounds; soft labdanum, one pound; yellow resin, yellow wax, each

four ounces; the expressed oil, called oil of mace, one ounce. Melt the pitch, resin, and wax together; then add, first the labdanum, and afterwards the oil of mace.

Take of yellow wax, tacamahaca, each four ounces; Venice turpentine, four ounces; essential oil of lavender, two drachms; oil of amber, one drachm. Add the oils to the other ingredients, previously made into a plaster and grown almost cold.

These plasters are applied in weakness or pains of the head, to the temples, forehead, &c. and sometimes likewise to the feet.

Emplastrum de Cicuta cum Ammoniaco.

Plaster of Hemlock with Ammoniacum.

Take of hemlock juice four ounces; gum ammoniacum, eight ounces; vinegar of squills, as much as is sufficient to dissolve the gum. Add the juice to this solution, and having strained the mixture, boil it to the consistence of a plaster.

This is supposed to be a powerful cooler and discutient, and particularly serviceable against swellings of the spleen and distensions of the hypochondres.

L. *Emplastrum Commune.*
Common Plaster,

Take of oil of olive, one gallon; litharge, ground into a most subtil powder, five pounds. Boil them over a gentle fire, with about two pints of water, keeping them continually stirring, till the oil and litharge unite, and acquire the consistence of a plaster. If all the water should be consumed before
this

this happens, add some more water, previously made hot.

E. D. Take of litharge five pounds; oil of olive, a gallon; boil as in the preceding. This is instead of the *Diachylon simplex*, & *Diapalma*.

These plasters are the common application in excoriations of the skin, slight fresh wounds, and the like. They keep the part soft, and somewhat warm, and defend it from the air, which is all that can be expected in these cases from any plaster.

L. *Emplastrum communi Adhæsivum*.
Common Sticking Plaster.

Take of common plaster, three pounds; yellow resin, half a pound. Melt the common plaster over a very gentle fire; then add the resin, first reduced into powder that it may melt the sooner; and mix them all together.

E. *Emplastrum Adhæsivum five commune Adhæsivum*.
Sticking Plaster.

Take of common plaster, two pounds; white resin, five ounces. Melt them together, so as to make a plaster.

These plasters are used chiefly as adhesives, for keeping on other dressings, &c.

L. *Emplastrum commune cum Gummi*.
Common Plaster with Gums.

Take of common plaster, three pounds; galbanum strained, eight ounces; common turpentine, frankincense, each three ounces. Melt the galbanum with the turpentine, over a gentle fire, and sprinkle in the frankincense, reduced to powder: then gradually mix with these the common plaster, pre-

viously liquefied by a very gentle heat. Or, instead of the common plaster already made, you may take the oil and litharge boiled together: as soon as these unite, before they have acquired the consistence of a plaster, the other ingredients are to be added.

E. *Emplastrum Gummosum, five Emplastrum commune cum Gummi*.
Diachylon Plaster with Gums.

Take of common plaster, two pounds; gum ammoniacum strained, galbanum strained, and yellow wax, of each three ounces. Melt them with a gentle heat, and make them into a plaster.

These plasters are used as digestives and suppuratives; particularly in abscesses, after a part of the matter has been maturated and discharged, for suppurating or discharging the remaining hard part.

L. *Emplastrum e Cymino*.
Cummin Plaster.

Take of Burgundy pitch, three pounds; yellow wax, cummin seeds, caraway seeds, bay berries, each three ounces. Melt the pitch with the wax; then sprinkle in the other ingredients, first reduced into a powder, and mix the whole well together.

This plaster stands recommended as a moderately warm discutient; and directed to be applied to the hypogastric region, for strengthening the viscera, and expelling flatulencies.

E. *Emplastrum Defensivum five reborans*.
Defensive Plaster.

Take of common plaster, two pounds; yellow wax and white resin, of each three ounces; colcothar of vitriol, four ounces; olive

olive oil, two ounces. Rub the colcothar with the oil, then mix it with the rest after melting them over a gentle fire.

This plaster is laid round the lips of wounds and ulcers, for defending them from inflammation, and other ill symptoms; which it is supposed to effect, by somewhat constringing the vessels, and thus preventing the afflux of humors to the part.

L. Emplastrum ex Ammoniaco cum Mercurio.

Plaster of Ammoniacum with Mercury.

Take of gum ammoniacum, strained, one pound; quicksilver, three ounces; simple balsam of sulphur, one drachm. Grind the quicksilver with the balsam of sulphur, till it ceases to appear; then having melted the ammoniacum, add it gradually a little before it cools, to this mixture; and let the whole be perfectly mingled together.

This is a very well contrived mercurial plaster: if in some cases, it should not prove adhesive enough, the addition of a small quantity of turpentine will readily make it so.

L. Emplastrum commune cum Mercurio.

Common Plaster with Mercury.

Take of common plaster, one pound; quicksilver, three ounces; simple balsam of sulphur, one drachm. Make them into a plaster, after the same manner as the foregoing.

E. Emplastrum Mercuriale sive commune cum Mercurio.

Mercurial Plaster.

Take of quicksilver, eight ounces; Venice turpentine, two ounces and

a half; common plaster, a pound and a half. Rub the quicksilver in a mortar with the turpentine until the globules disappear; then by little and little add the plaster, previously melted by a gentle heat.

These mercurial plasters are looked on as powerful resolvents and discutients, acting with much greater certainty in these intentions, than any composition of vegetable substances alone; the mercury exerting itself in a considerable degree, though it is rarely introduced into the habit, in such quantity as sensibly to affect the mouth. Pains in the joints and limbs from a venereal cause, nodes, tophs, beginning schirrosities, and indurations of the glands, sometimes yield to them.

L. Emplastrum c Minio.

Red Lead Plaster.

Take of oil olive, four pints; red lead, reduced to a most subtile powder, two pounds and a half: make them into a plaster, after the manner directed for preparing the common plaster: but more water is here required, and greater care is necessary to prevent the composition from burning and growing black.

Emplastrum Croceum, vulgo Oxycroceum.

The Plaster called Oxycroceum.

Take of yellow wax, Burgundy pitch, each, one pound; galbanum, half a pound; tar, half a pound; saffron, two ounces; mix and make them into a plaster, according to art.

This plaster is said to strengthen the parts to which it is applied, especially the tendinous ones; to warm in a great degree, and to solve and discuss cold tumors.

L. Em-

L. *Emplastrum e Mucilag'inibus.*

Plaster of Mucilages.

Take of yellow wax, forty ounces; oil of mucilages, half a pint; gum ammoniacum strained, half a pound; common turpentine, two ounces. Melt the ammoniacum with the turpentine; and having, in another vessel liquified the wax with the oil, add this latter mixture to the other.

L. *Emplastrum roborans.*

Strengthening Plaster.

Take of common plaster, two pounds; frankincense, half a pound; dragons blood, three ounces. Melt the common plaster, and add to it the other ingredients reduced into powder.

This is a reformation of the laborious and injudicious composition described in our preceding Pharmacopœias, under the title of *Emplastrum ad Herniam*; and though far the most elegant and simple, is as effectual for that purpose, as any of the medicines of this kind. If constantly worn, with a proper bandage, it will, in children, frequently do service; though not so much from any strengthening quality of the ingredients, as from its being a soft, close, and adhesive covering. It has been supposed, that plasters composed of styptic medicines, constringe and strengthen the part to which they are applied, but on no very just foundation; for plasters in general relax rather than astringe, the unctuous ingredients necessary in their composition, counteracting and destroying the effect of the others.

L. *Emplastrum e Sapone.*

Soap Plaster.

Take of common plaster, three pounds; hard soap, half a pound.

Having melted the common plaster, mix with it the soap, and boil them to the consistence of a plaster. Take care not to let it grow too cold before you form it into rolls; otherwise it will prove too brittle.

E. *Emplastrum Saponaccum, five e Sapone.*

Take of common plaster, two pounds; common plaster with gums, one pound; white Spanish soap, nine ounces. To the plasters melted, add the soap finely shaved; then boil them gently to make it into a plaster.

L. *Emplastrum Stomachicum.*

Stomach Plaster.

Take of soft labdanum, three ounces; frankincense, one ounce; cinnamon, the expressed oil called oil of mace, each half an ounce; essential oil of mint, one drachm. Having melted the frankincense add to it, first the labdanum softened by heat, and then the oil of mace; afterwards mix these with the cinnamon and oil of mint; and beat them together in a warm mortar into a mass, which is to be kept in a close vessel.

This is a very elegant stomach plaster.

Take of yellow wax, eight ounces; tacamahaca in powder, four ounces; palm oil, six ounces; powder of clove July-flowers, two ounces; expressed oil of mace, an ounce and a half; essential oil of mint, two drachms. Melt the wax and tacamahaca together, then add the other ingredients, and make them into a plaster, according to art.

These plasters are applied to the pit of the stomach, in weakness of that viscus, in vomitings, the disorder

order improperly called the heart-burn, &c. and sometimes with good success.

L. *Emplastrum Vesicatorium.*

Blistering Plaster.

Take of drawing plaster, two pounds; cantharides, one pound; vinegar, half a pint. Melt the drawing plaster, and a little before it grows stiff, mix in the cantharides, reduced into a most subtile powder; then add the vinegar, and work them well together.

E. *Emplastrum Vesicatorium vulgo Emplastrum Epispasticum.*

Blistering Plaster.

Take of yellow wax, two pounds; white resin and hogs lard, of each

one pound; olive oil, eight ounces, and powdered cantharides, a pound and a half. Mix the powdered flies with the oil, then gradually add the mixture to the other ingredients previously melted, but removed from the fire.

Emplastrum volatile.

Volatile Plaster.

Take of Venice turpentine, spirit of sal ammoniac, each one ounce; beat the turpentine in a mortar, pouring on it, by little and little, the spirit of sal ammoniac.

This is a very acrid composition, and as such is sometimes applied in rheumatic and ischiadic pains.

Ointments, Liniments, and Cerates.

L. *Unguentum Album.*

White Ointment.

Take of oil olive, one pint; white wax, four ounces; spermaceti, three ounces. Liquefy them by a gentle fire, and keep them constantly and briskly stirring till grown thoroughly cold.

E. *Unguentum e Cerussa, vulgo Album.*

Take of oil olive, three pints: ceruse and white wax, of each nine ounces. Mix and make them into an ointment, according to art.

These are useful, cooling, emollient ointments, of good service in excoriations, and other like frettings of the skin. The ceruse is omitted in the first prescription, on a suspicion that it might produce some ill effects, when applied, as these unguents frequently are, to the tender bodies of children.

L. *Unguentum Album Camphoratum.*
Camphorated White Ointment.

This is made by adding to the white ointment a drachm and a half of camphor, previously ground with some drops of oil of almonds.

This ointment is supposed to be more discutient than the foregoing, and serviceable against cutaneous heats, itching, and serpiginous eruptions. It should be kept in close vessels, otherwise the camphor will soon exhale: its smelling strong of this ingredient is the best mark of its goodness.

L. *Unguentum ex Albæa.*

Ointment of Marshmallows.

Take of oil of mucilages, three pints; yellow wax, one pound; yellow resin, half a pound; common turpentine, two ounces. Melt the resin and wax with the oil; then, having taken them from the fire,

fire, add the turpentine, and while the mixture remains hot, strain it. This ointment does not receive any advantage from the ingredient to which it owes its name. See *Ol. E. Mucilage*.

L. Unguentum Basilicum Flavum.

Yellow Basilicum Ointment.

Take of oil olive, one pint; yellow wax, yellow resin, Burgundy pitch, each one pound; common turpentine, three ounces. Melt the wax, resin, and pitch, along with the oil over a gentle fire; then take them from the fire, add the turpentine, and whilst the mixture remains hot, strain it.

E. Unguentum Basilicum Flavum.

Yellow Basilicum Ointment.

Take of yellow wax and white resin, of each two ounces; hogs lard and olive oil, of each one pound. Melt them gently over the fire, then remove them therefrom, and continually stir them until they mix into an ointment.

These are commonly employed in dressings, for digesting, cleansing, and incarnating wounds and ulcers. They differ very little, if at all, in their effects, from the *linimentum Arcæi*.

**L. Unguentum Basilicum Nigrum
vel Tetrapharmacum.**

Black Basilicum Ointment, or Ointment of Four Ingredients.

Take of oil olive, one pint; yellow wax, yellow resin, dry pitch, each nine ounces. Melt them all together, and whilst the mixture is hot, strain it off.

This ointment was formerly of considerable esteem for healing and incarnating wounds, &c. but is said to have an inconvenience of being apt to render them foul, and

produce fungous flesh: at present it is rarely made use of: the yellow basilicum, and the liniment of Arcæus being in general preferred.

L. Unguentum Basilicum Viride.

Green Basilicum Ointment.

Take of yellow basilicum, eight ounces; oil olives, three ounces by measure; verdigrise prepared, one ounce. Mix and make them into an ointment.

Our hospitals have been accustomed to prepare an ointment greatly resembling this, under the title of *unguentum viride detergens*.

E. Unguentum Cereum, sive Album.

Take of olive oil, one pint; white wax, four ounces; spermaceti, three ounces. Mix them by melting them over a gentle fire, then stirring them together until they become cool.

Unguentum Citrinum.

Yellow Ointment.

Take of quicksilver, one ounce; spirit of nitre, two ounces; hogs lard, tried, one pound. Dissolve the quicksilver in the spirit of nitre, by letting them stand together a few minutes, then mix the solution with the lard, by stirring them well together. After a few hours it becomes of a yellow colour, and in two or three days it acquires a considerable hardness.

It is used in several kinds of eruptions on the skin; it is highly extolled as an efficacious remedy against the itch; and, as a gentle escharotic, it is frequently used in our hospitals.

L. Unguentum Cæruleum fortius.

The Stronger Blue Ointment.

Take of hogs lard, tried, two
K k pounds;

pounds; quicksilver, one pound; simple balsam of sulphur, half an ounce. Grind the quicksilver with the balsam of sulphur till they are perfectly incorporated; then gradually add the lard heated, and mix them carefully together.

L. Unguentum Cæruleum mitius.

The Milder Blue Ointment.

Take of hogs lard, tried, four pounds; quicksilver, one pound; common turpentine, one ounce. Grind the quicksilver with the turpentine, in a mortar, till it ceases to appear; then gradually add the lard warmed, and carefully mix them together.

Mercurial unguents have in many cases the same effects with the preparations of this mineral taken internally; and are at present frequently employed, not only against cutaneous disorders, as alterants; but likewise in venereal and other obstinate cases, for raising a salivation. The ptyalism excited by unction is said to be attended with the fewest inconveniences, and to perform the most complete cure.

E. D. Unguentum Emolliens.

Take of palm oil, four pints; fresh linseed oil, three pints; yellow wax, one pound; white resin, three ounces. Melt them together over a gentle fire, then stirring them together until cold. This is to supply the place of the *unguentum dialthæ*.

L. Unguentum e Gummi Elemi.

Ointment of Gum Elemi.

Take of mutton suet, fresh and tried, two pounds; gum elemi, one pound; common turpentine, ten ounces. Melt the gum with

the suet, and having taken them from the fire, immediately mix in the turpentine; then whilst the mass remains fluid, strain it off.

E. Unguentum Mercuriale.

Mercurial Ointment.

Take of hogs lard and mutton suet, of each one ounce; quicksilver, one ounce. Beat them diligently together, till the quicksilver disappears. It may likewise be made with two, three, or more times the quantity of quicksilver.

This is the most simple of the mercurial ointments, though possibly as efficacious as any. It requires indeed a great deal more labour to extinguish the mercury in the lard alone, than when turpentine, or other like substances are joined: but, in recompence, the composition with lard is free from an inconvenience which the others are accompanied with, viz. being apt, by frequent rubbing, to fret tender skins. Some chuse to stiffen this ointment with a fourth part of suet (proportionably diminishing the lard) which gives it a better consistence for use.

L. Unguentum e Mercurio Præcipitato.
Ointment of Mercury Precipitate.

Take of simple ointment, an ounce and a half; precipitate sulphur, two drachms; white mercury precipitate, two scruples. Mix them well together, and moisten them with ley of tartar, that they may be made into an ointment.

This is a very elegant mercurial ointment, and frequently made use of against cutaneous disorders. The preparations of mercury and sulphur here directed, are chosen on account of their colour.

Unguentum Nervinum.

Ointment for the Nerves.

Take of mutton suet, two pounds; melt it over a gentle fire and make it into an ointment with a pint of chamomile oil; take it from the fire, and stir into it a pint and a half of laurel oil, and two ounces of the distilled oil of origanum or rosemary. This ointment is supposed to warm and strengthen the nerves, to remove numbnesses, and to be serviceable in palsies.

Unguentum Nutritum.

The Ointment called Nutritum.

Take of litharge, vinegar, each two ounces; oil olive, six ounces. Rub them in a mortar, adding the oil and vinegar alternately by little and little at a time, till the vinegar ceases to appear, and the ointment becomes uniform and white.

This ointment is troublesome to make, and does not keep well, the vinegar exhaling, so as to leave the compound too stiff. It is supposed to be a good cooler and desiccative; and is occasionally used in excoriations, slight serpiginous eruptions, and for anointing the lips of wounds or ulcers that itch much, or tend to inflammation.

L. E. *Unguentum e Pice.*

Ointment of Tar.

Take of mutton suet tried, tar, each equal weights. Melt them together, and strain the mixture whilst hot.

This composition, with the addition of half its weight of resin, has long been used in the shops as a cheap substitute to the black balsilicum.

L. *Unguentum Sambucinum.*

Ointment of Elder.

Take of elder flowers, full

blown, four pounds; mutton suet tried, three pounds; oil olive, one pint. Melt the suet with the oil, and in this mixture boil the flowers till they are almost crisp; then strain and press out the ointment.

Take of the inner bark of the elder tree, the leaves of elder, fresh, each four ounces; linseed oil, two pints; white wax, six ounces. Let the bark and leaves be well bruised, and boiled in the oil till the humidity is consumed; then press out the oil through a strainer, and melt in it the wax, so as to make an ointment.

These ointments do not seem superior to some others which are much neater, and parable at less expence. They can scarce be supposed to receive any considerable virtue from the ingredients which they take their name from.

L. *Unguentum Saturninum.*

Saturnine Ointment.

Take of oil olive, half a pint; white wax, an ounce and a half; sugar of lead, two drachms. Let the sugar of lead, reduced into a very subtil powder, be ground with some part of the oil, and the wax melted with the rest of the oil: mix both together, and keep them stirring till the ointment is grown cold.

E. *Unguentum Saturninum.*

Saturnine Ointment.

Take of sugar of lead, half an ounce; white wax, three ounces; oil olive, one pint. Liquefy the oil and wax together, and gradually add the sugar of lead, first well mixt with a little of the oil, continually stirring them till growing cold they unite into an ointment.

This is an excellent cooler and desiccative ; much superior, both in elegance and efficacy to the *nutritum* or *triparmacum*.

L. *Unguentum simplex.*

The Simple Ointment.

Take of hog's lard, tried, two pounds ; rose water, three ounces by measure. Beat the lard with the rose water, till they are well mixed ; then melt them over a very gentle fire, and set them by for some time, that the water may subside : pour the lard off from the water, and keep incessantly stirring and beating it about till it grows cold, so as to reduce it into a light incoherent mass : lastly add so much essence of lemons as will be sufficient to give a grateful odour.

Unguentum Rosaceum, vulgo Pomatum.

The Rose Ointment, commonly called Pomatum.

On any quantity of hog's lard, cut into small pieces, and placed in a glazed earthen vessel, pour as much water as will rise above it some inches ; and digest them together for ten days, renewing the water every day. Then liquefy the lard with a very gentle heat, and pour it into a proper quantity of rose water : work them well together ; and afterwards, pouring off the water, add to the lard some drops of oil of rhodium.

These ointments are in common use, for softening and smoothing the skin, and healing chaps.

L. *Unguentum e Sulphure.*

Ointment of Sulphur.

Take of the simple ointment, half a pound ; flowers of sulphur, unwashed, two ounces ; essence of

lemons, one scruple. Mix them together.

This is designed for the itch and cutaneous disorders.

L. *Unguentum Triparmacum.*

Ointment of Three Ingredients.

Take of common plaster, four ounces ; oil olive, two ounces by measure ; vinegar, one ounce by measure. Boil them together over a gentle fire, keeping them continually stirring till they are reduced to the consistence of an ointment.

This is a new method of preparing the *unguentum nutritum*, much less troublesome than the one already described under that title. The composition proves likewise more smooth and uniform, and not so liable to grow dry in keeping. This ointment is nevertheless inferior, both in respect of elegance and efficacy, to the *unguentum saturninum*.

L. *Unguentum Tutie.*

Ointment of Tutty.

Let any quantity of prepared tutty be mixed with as much purified vipers fat as is sufficient to reduce it into the consistence of a soft ointment.

This ointment is designed for an ophthalmic.

E. Take of hog's lard, four ounces ; white wax, two drachms ; tutty an ounce. Liquefy the wax with the lard, over a gentle fire ; then gradually sprinkle in the tutty, continually stirring them, till the ointment grows cold.

The ointment of tutty made with butter turns so soon rancid, as to be improper for an officinal.

Unguentum Tutie Camphoratum.

Ointment of Tutty with Camphor.

This is made by adding to the former

former two drachms of camphor. It is likewise made with double the quantity of camphor.

L. *Unguentum ad Vescicatoria.*

Unguentum Epispasticum.

Ointment for Blisters.

Take of hog's lard, tried, blistering plaster, each equal weights. Melt them together over a very gentle fire, and keep them constantly stirring till grown cold.

E. Take of olive oil, one pound; yellow wax, four ounces; white resin, two ounces; cantharides, one ounce and a half. On a gentle fire, melt the wax and the resin with the oil; then remove them from the fire, and add by little and little the flies in powder, diligently stirring until the mixture becomes cold.

These ointments are added in the dressings for blisters, intended to be made perpetual as they are called, or to be kept running for a considerable time.

E. D. *Unguentum Epispasticum mitius.*

The Milder Ointment for Blisters.

Take of cantharides one ounce, infuse them in four ounces of boiling water in a well corked bottle, for one night; strain off the liquor, pressing the bag very hard: boil the strained liquor with two ounces of hog's lard till all the moisture is walled; then add of white resin, and yellow wax, each one ounce; of Venice turpentine, two ounces.

This ointment is much better contrived than any of the preceding; and keeps a blister discharging without causing the strangury,

or so much pain as either of the former.

L. *Unguentum Viride.*

Green Ointment.

Take of the green oil, three pints; yellow wax, ten ounces; melt them together over a gentle fire, and keep the mixture continually stirring until it is grown cold.

This ointment does not seem to receive any particular virtue from the ingredients to which its colour is owing.

L. *Linimentum Album.*

White Liniment.

Take of oil olive, three ounces by measure; sperma ceti, six drachms; white wax, two drachms. Melt them together over a gentle fire, and keep them constantly and briskly stirring, till grown cold.

This differs only in consistence from the *unguentum album*.

E. *Linimentum Cereum.*

The Wax Liniment.

Take of olive oil, three ounces; sperma ceti, three drachms; white wax, two drachms. Melt them together on a gentle fire, then stir them continually until cold.

L. *Linimentum Saponaceum.*

Saponaceous Liniment.

Take of spirit of rosemary, one pint; hard Spanish soap, three ounces; camphor, one ounce. Digest the soap in the spirit of rosemary, until it is dissolved: then add the camphor.

E. *Balsamum Saponaceum, vulgo Opodeldoch.*

Saponaceous Balsam, commonly called Opodeildoc

Take of Spanish soap, ten ounces;

ces; camphor, four ounces; essential oil of rosemary, an ounce; rectified spirit of wine, four pints. Digest the soap in the spirit of wine, with a gentle heat till it is dissolved; then add the camphor and the oil, and shake the whole well together, that they may be perfectly mixed.

E. *Balsamum Anodynum.*
Anodyne Balsam.

This is made by occasionally adding two ounces of opium to the foregoing saponaceous balsam.

This medicine stands highly commended for allaying gouty pains: it is said to procure ease in the greatest extremities of torture, to promote the transpiration of the irritating matter, and entirely to carry off the fit; a cloth, dipt in it, being laid on the part. It is likewise directed to be taken inwardly, from twenty to fifty drops, in the same disorder, as also in nervous colics, the jaundice, and for deterging and cleansing the viscera.

Balsamum Viride.
Green Balsam.

Take of linseed oil, oil of turpentine, each one pound; verdegrise, in powder, three drachms. Boil and stir them well together till the verdegrise is dissolved.

A balsam, similar to this, is said to have been greatly valued by our surgeons as a detergent.

L. *Linimentum Tripharmacum.*
Liniment of Three Ingredients.

Take of common plaster, four ounces; oil olive, a quarter of a pint; vinegar, one ounce by measure. Boil them over a gentle fire, continually stirring them until they acquire the consistence of a Liniment.

This is the same with the unguentum tripharmacum, except that the quantity of oil is here increased to give the compound the softer consistence of a liniment.

L. *Linimentum Volatile.*
Volatile Liniment.

Take of oil of almonds, one ounce by measure; spirit of sal ammoniac, two drachms by weight. Stir them together in a wide mouthed phial, until they perfectly unite.

Linimentum Volatile.
Volatile Liniment.

Take of oil of hartshorn, and of spirit of hartshorn of each equal parts, mix them together.

Dr. Pringle says, that in the inflammatory quinsy a piece of flannel, moistened with this mixture and applied to the throat, to be renewed every four or five hours is one of the most efficacious remedies. By means of this application, the neck, and sometimes the whole body, is put into a sweat, which, after bleeding, either carries off, or lessens the inflammation. Where the skin cannot bear the acrimony of this mixture, the volatile liniment of the London Dispensatory as above may be used.

L. *Ceratum Album.*
White Cerate.

Take of oil olive, a quarter of a pint; white wax, four ounces; sperma ceti, half an ounce. Li-quesfy them all together, and keep them stirring till the cerate is grown quite cold.

This differs from the white ointment and liniment only in being of a thicker consistence.

L. *Ceratum Citrinum.*
Yellow Cerate.

Take of yellow basilicum ointment,

ment, half a pound ; yellow wax, one ounce ; melt them together.

This is no otherwise different from the yellow basilicum, than being of a stiffer consistence, which renders it for some purposes more commodious.

L. *Ceratum Epuloticum.*

Epulotic Cerate.

Take of oil olive, one pint ; yellow wax, calamine prepared, each half a pound. Liquefy the wax with the oil, and as soon as the mixture begins to grow stiff, sprinkle in the calamine ; keeping them constantly stirring together, till the cerate is grown quite cold.

E. *Unguentum e Lapide Calaminari.*
Ointment of Calamine.

Take of yellow wax, twelve ounces ; oil olive, two pints ; calamine prepared, nine ounces. Melt the wax with the oil, and gradually add the calamine, previously mixed with a little of the oil, and stir them well together till grown cold.

These compositions are formed upon the cerate, which Turner strongly recommends in cutaneous ulcerations and excoriations, and which has been usually distinguished by his name. They appear from experience to be excellent epulotics, and as such are frequently made use of in practice.

L. *Ceratum Mercuriale.*
Mercurial Cerate.

Take of yellow wax, hog's lard, tried, each half a pound ; quicksilver, three ounces ; simple balsam of sulphur, one drachm. Melt the wax with the lard, then gradually add this mixture to the quicksilver and balsam of sulphur, previously ground together.

Epithems.

L. *Epithema Vescicatorium.*

Blistering Epithem.

Take of cantharides, reduced into a most subtil powder wheat flour, each equal weights. Make them into paste with vinegar.

This composition is of a softer consistence than the blistering plasters, and for this reason is in some cases preferred. Practitioners differ with regard to the degree of consistence and adhesiveness most proper for applications of this kind, and sometimes vary them occasionally.

L. *Epithema Volatile.*

Volatile Epithem.

Take of common turpentine, spirit of sal ammoniac, each equal weights. Stir the turpentine in a mortar, gradually dropping in the spirit, until they unite into a white mass.

This is the *emplastrum volatile* of the Edinburgh Pharmacopœia.

L. *Cataplasma e Cymino.*

Cataplasin of Cummin.

Take of cummin seeds, half a pound ; bay berries, scordium leaves dried, Virginian snake-root, each three ounces ; cloves one ounce ; honey, thrice the weight of the powdered species. Make them into a cataplasin.

This is a reformation of the *Theriaca Londinensis*, which for some time past has been scarce otherwise made use of than as a warm cataplasin : only such of its ingredients are retained as contribute most to this intention.

Cataplasma Discutiens.

Discutient Cataplasin.

Take of briony root, three ounces ; elder flowers, one ounce ;

K k 4

gum

gum ammoniacum, half an ounce ; sal ammoniac, crude, two drachms ; camphorated spirit of wine, one ounce. Boil the root and flowers in a sufficient quantity of water, till they become tender ; and having bruised the magma, add to it the gum ammoniacum, dissolved in a sufficient quantity of vinegar, and likewise the sal ammoniac and spirit : mix the whole together, so as to make them into a cataplasim.

This composition is as good a discutient as any thing that can well be contrived in this form of a cataplasim. In some cases, however, it will contradict its title, and instead of discussing, promote sup-
puration,

L. *Cataplasma Maturans.*
Ripening Cataplasim.

Take of figs, four ounces ; yellow basilicum ointment, one ounce ; galbanum, strained, half an ounce. Beat the figs thoroughly in a mortar, occasionally dropping in some spirit of wine or strong ale ; then carefully mix with them the ointment first liquefied along with the galbanum.

Cataplasma Suppurans.
Suppurating Cataplasim.

Take of white lily (or marsh-mallow) roots, four ounces ; fat figs, one ounce ; raw onions, bruised, six drachms ; galbanum, half an ounce ; yellow basilicum ointment, oil of chamomile by infusion, each one ounce ; meal, as much as is sufficient. Let the lily (or marsh-mallow) roots be boiled along with the figs, in a sufficient quantity of water, till they become tender ; then bruise, and add to them the other ingredients, and make the whole into a cataplasim, according to art. The galbanum

must be previously dissolved in the yolk of an egg.

Both these compositions are good suppurants, or ripeners : though their effects probably depend more on their keeping the part soft, moist, and warm, than on any particular qualities of the ingredients.

Cataplasma Aromaticum.
Aromatic Cataplasim.

Take of long birthwort root, bay berries, each four ounces ; sweet fennel seed, leaves of mint, each three ounces ; Jamaica pepper, myrrh, each two ounces ; honey, three times the weight of the ingredients. Make the whole into a cataplasim. This is intended for external application in those cases where the theriaca is used to be ordered.

Sinapismus. Sinapism.

Take of mustard seed, in powder, crumb of bread, each equal parts ; strong vinegar, as much as is sufficient. Mix them together.

This composition is employed only as a stimulant : it often inflames the part to which it is applied, and raises blisters, but not so perfectly as cantharides. It has been customary to employ these kinds of acrid medicines in applications to the feet, with a view to make a derivation or revulsion from the head ; but the service which these irritating applications are of, in acute disorders where the head already is, or is disposed to be affected, can arise only from their impressing a stimulus, which is at first partial, and by degrees becomes universal.

L. *Coagulum Aluminosum.*
Alum Curd.

Take any quantity of the white
of

of eggs; agitate it with a sufficient large lump of alum, in a tin dish, until it is coagulated.

This preparation is taken from Riverius. It is an useful astringent epithem for sore moist eyes, and excellently cools and represses thin defluxions. It may be applied upon a little tow, or the like, at bed time.

Unguenta, &c.

Ointments, &c. from the former London Dispensatory and others.

Unguentum Ægyptiacum.

The Egyptian Ointment.

Take of verdegrise, or of the green rust of brass, finely powdered, five parts; of honey fourteen parts; of the sharpest vinegar, seven parts; boil them all together to a due consistence, and a dusky red colour. The scum of this ointment is called *Mel Ægyptiacum*, Egyptian Honey.

Fabricius Hildanus, in a discourse concerning a gangrene and a mortification, gives this medicine an extraordinary commendation, for eating off rotten flesh and cleansing old ulcers. In venereal ulcerations likewise about the throat and tonsils it does great service.

Unguentum Ægyptiacum magis compositum.

A more compounded Egyptian Ointment.

Take of verdegrise four ounces; of the sharpest vinegar six ounces; of honey a pound; let them all boil over a gentle fire to a dusky colour, adding towards the latter end, roch alum and sal ammoniac, of each half an ounce; and make them into an ointment, *f. a.*

E. Unguentum ex Ærugine.

Ointment of Verdegrise.

Take of white wax and white resin, of each two ounces; olive oil, a pint; verdegrise, finely powdered, half an ounce. Mix the wax resin and oil, by melting them over a gentle fire; then remove them therefrom, and by degrees add the verdegrise, previously rubbed well with a little of the oil, then continually stir them until the ointment is cool.

N. B. It is also made with double the quantity of verdegrise.

Unguentum e Gummi Elemi, sive Linimentum Arcæi.

Ointment of Gum Elemi, or Arcæus's Liniment.

Take of gum elemi and turpentine of fir, of each an ounce and a half; of old and depurated mutton suet two ounces; of old and depurated hog's lard an ounce; mix them, and make an ointment, *f. a.*

This most commonly goes by the name of *Linimentum Arcæi*, from Arcæus its inventor, who, in a treatise, *De recta Vulnerum Curatione*, lib. i. cap. 4. greatly extols this balsam, as he calls it, particularly in wounds of the head; it digests and incarns much better than the basilicon, which is apt to foul a wound, and generate fungous flesh.

Unguentum Aureum.

The Golden Ointment.

Take of yellow wax, half a pound; of common oil, two pounds; of turpentine, two ounces; of the pine-tree resin, and colophony, of each an ounce and a half; of frankincense and mastich, of each an ounce; of saffron, a drachm; first of all melt the wax in the oil, then

then put in the turpentine, and give them a boil together; after they have stood to cool a little, sift in all the rest, finely powdered; but add the saffron last of all, and stir them about with a wooden spatula till they become an ointment, *f. a.*

Unguentum à Nicotiana, seu Peto.

Ointment of Tobacco.

Take of the depurated juice of tobacco, of fresh hog's lard diligently washed, of each one pound, and boil them together to the consumption of the juice; then add of Venice turpentine, four ounces: and of round birthwort in powder, two ounces; and make them into an ointment, *f. a.*

This is originally taken from a Dispensatory of Laurentius Jobertus. Its first prescriber gives it an extraordinary character for dissipating scrophulous tumours, and healing green wounds; but the modern practice directs it chiefly in cutaneous foulnesses: though it is so uncleanly a medicine at best, as to be offensive to nice persons.

Unguentum Nutritum.

An Ointment by Mixture.

Take of litharge of gold in fine powder, half a pound; of wine vinegar, five ounces; of oil of roses, one pound. Let the litharge be stirred about in a mortar, by turns pouring in oil and vinegar, in little parcels, until the vinegar ceases to be visible, and the whole becomes a white ointment.

It is very drying; and even in keeping will grow so brittle as to want fresh oil to make it fit for use. But it is not greatly in esteem.

Unguentum ex Oxylopatho.

Ointment of sharp-pointed Dock.

Take of sharp-pointed dock root boiled in water, and drove through a sieve, and sulphur vivum, of each one ounce and a half; of hog's lard, boiled in the juice of scabious, to the consumption of all the juice, half a pound; of the *unguentum populneum*, boiled in the juice of elecampane, half an ounce; some drops of oil of rhodium; and let them all be reduced by the mortar into an ointment, *f. a.*

It is designed for the itch, and cutaneous distempers; but is so troublesome to make, and so uncleanly at best, that it is seldom used or made.

Unguentum Pomatum.

Ointment of Apples.

Take of fresh hog's lard, three pounds; of fresh sheep's suet, nine ounces; of the apples commonly called pome waters, pared and sliced, one pound nine ounces; of the most fragrant rose-water, six ounces; of Florentine orris root grossly powdered, six drachms. Let these boil together in *balneo Mariæ* till the apples are dissolved; then strain without expression, and keep it for use. Just warm it again, and wash the whole with rose-water.

Almost all the officinal Dispensatories abound with prescriptions for this ointment. The common practice of the shops has of late been to buy it of persons who make it their sole business; and who do nothing but beat up fresh hog's lard with rose-water into a kind of a curd, and scent it with any of the aromatic oils, most suitable to the liking of their customers.

Unguentum Rubrum Desiccativum.

Red drying Ointment.

Take of common oil, two pounds; of yellow wax, twelve ounces; of Armenian bole, and the *caput mortuum* of vitriol, of each six drachms: of calamine levigated, four ounces; of litharge of gold and ceruse, of each six ounces and a half; of camphor, half an ounce; and boil over a gentle fire to the consistence of an ointment.

The wax and oil only are to be kept over the fire together; and, as soon as they are melted, all the rest are to be stirred in, finely powdered: and the camphor must be first reduced, by itself, in a mortar rubbed with oil of almonds.

Unguentum Sambucinum.

Ointment of Elder.

Take of elder leaves gathered in May, ten handfuls; of the young shoots growing about the bottom of the tree, two pounds; of the inner bark of the same, one pound. After these are all cut small, boil them in twelve pounds of fresh butter, over a slow fire, continually stirring them all the while. Press out the butter and strain it: put to it the same quantity of fresh leaves, shoots, and bark; and repeat the process as before; then press it out again with less force, so that it may be an ointment, *f. a.*

The measure of boiling is, until the leaves, &c. grow crisp.

Valentia Scabiosæ.

Powers of Scabious.

Take of the juice of green scabious, pressed out and strained through a cloth, and of hog's lard cleared of its membranes, each as much as you please. Let the lard be beat in a stone mortar, and the

juice poured in by little at a time, for the convenience of mixture, and giving its tincture: then put them together into a proper vessel, to be exposed to the sun; and so that the juice may cover the lard; after nine days, put them again into the mortar as before, and throw away that thin and discoloured humidity, which separates upon beating, without rubbing them together; and again put it into its vessel for five days. Afterwards beat it again; and, by a little at a time, mix it with fresh juice of scabious; and after a fresh insolation or fifteen days, in its proper vessel, in the sun, let it be cleared, as before, of its watery humidity. Let it then stand again in the same manner, for fifteen days longer, with fresh juice; and after a little beating, let it be kept for use, in a glass or earthen vessel.

This we are told by the first compilers of the college Dispensatory, was the contrivance of John Arden, an experienced surgeon at Newark, in Nottinghamshire, who lived in the reign of Edward III. The powers, and honey of mullen, were from the same author; and almost three hundred years ago in great esteem among the surgeons of our own country; though they have now been long in disuse.

Unguentum Martiatum.

The Soldiers Ointment.

Take of fresh bay leaves, three pounds; of garden rue, two pounds and a half; of marjoram, two pounds; of mint, one pound; of sage, wormwood, costmary, and basil, of each half a pound; of oil olive, twenty pounds; of yellow wax, four pounds; of Malaga wine, half a pound; and
make

make them all into an ointment, by bruising, macerating, boiling, and expression, as required, *f. a.*

This is said to have been the contrivance of one Martian, for the soldiers to preserve their limbs with from the injuries they were liable to do in long encampments, and by sustaining cold.

Unguentum Populneum.

Ointment of Poplar.

Take of the fresh black poplar buds a pound and a half; of the leaves of violets and navel-wort of the wall, of each three ounces; of fresh unsalted hog's lard, cleared from its membranes, and washed, four pounds; bruise, mix, and macerate these together; and then add the tender tops of the bramble, leaves of black poppies, mandrake, henbane, nightshade, lettuce, the greater houseleek, and the greater burdock, of each three ounces; bruise again, and mix all together very well; and then after ten days standing pour on them a pound of rose-water; after which boil over a gentle fire, continually stirring with a spatula, until all the superfluous humidity is evaporated; then strain and squeeze out with a press so as to obtain an ointment, *f. a.*

Plasters from the former London Dispensatories; and others.

Emplastrum à Cicutacum Ammoniaco.
Plaster of Hemlock with Ammoniacum.

Take of the juice of hemlock leaves four ounces; vinegar of squills and gum ammoniacum, of each eight ounces; dissolve the gum in the juice and vinegar, and after due standing together, strain and reduce them to the consistence of a plaster, *f. a.*

It is used with success to discuss flatulencies, especially those of the hypochondria.

Diachylon compositum, sive Emplastrum à Mucilaginibus;

Compound Diachylon, or the Mucilage Plaster.

Take of the mucilage of the middle bark of elm, of marshmallow-root, fenugreek, and linseed, of each four ounces and a half; of the oils of chamomile, lilies, and dill, of each one ounce and a half; of ammoniacum, galbanum, fagapenum, and opopanax, of each half an ounce; of yellow wax, twenty ounces; of turpentine, two ounces; of saffron, two drachms. Let the mucilages, extracted with water, be boiled over a gentle heat with the oils, to a consumption of their aqueous humidity; and the wax, cut into small pieces, be melted in them, and stirred in with a spatula; when they are taken from the fire, and while hot, add by degrees, the gums dissolved in turpentine; and stir them well about; lastly, put in the saffron finely powdered; so as that the whole may be made into a mass, of the consistence fit for a plaster.

This is a composition of Mesue.

Emplastrum Epispasticum.

Blistering Paste.

Take of Burgundy pitch, twelve ounces; of Venice turpentine, 4 ounces; of the powder of cantharides, six ounces. Mix, and make them into a plaster, *f. a.*

Pasta Epispastica.

The Blistering Paste.

Take of cantharides in powder, and wheat-flour, each as much as
you

you please ; and of strong vinegar a sufficient quantity to make them into a paste.

None of these are exactly the same in any former Dispensatory ; and indeed most vary so much in their opinions concerning the consistence or adhesion necessary or best in compositions of this intention, that it is not like to have any particular standard, from which some or other in their private practice will not be apt to deviate.

Emplastrum a Nostratibus, Flos Unguentorum dictum.

A Plaster, called in our Country, the Flower of Ointments.

Take of common resin, resin of the pine-tree, yellow wax, sheep's suet, of each half an ounce ; of olibanum, four ounces ; of turpentine, two ounces and a half ; of myrrh and mastich, of each one ounce ; of camphor, two drachms ; of white-wine, half a pound : boil them together in a plaster.

Emplastrum de Gummi Elemi.

Plaster of Gum Elemi.

Take of gum elemi, four ounces ; resin of the pine-tree, fine wax, and gum ammoniacum, of each two ounces ; of turpentine, three ounces and a half ; of Malaga wine a sufficient quantity : boil till the wine is evaporated, then put in the ammoniacum, first dissolved in vinegar.

It is very rarely used or made.

Emplastrum de Meliloto simplex.

Simple Melilot Plaster.

Take of fine resin, eight pounds ; of yellow wax, four pounds ; of sheep's suet, two pounds ; after these are melted together, put in five pounds of green melilot cut

small ; and make them into a plaster, *f. a.*

Emplastrum Mercuriale.

The Mercury Plaster.

Take of quicksilver which hath been strained thro' leather, eight ounces ; of liquid storax, one ounce and a half ; of Venice turpentine, one ounce. Let the whole be worked together in a mortar, to an entire incorporation of the mercury ; then take of the *diachylitis* plaster, one pound ; of gum ammoniacum, half a pound. Melt them and put them into a mortar, and work them about until cold, and become a plaster.

Emplastrum Opodeldoc.

Opodeldoc Plaster.

Take of bdellium, ammoniacum, galbanum, sagapenum, and opopanax, of each two ounces ; melt these together, and add to them half a pound of Strasburgh turpentine, four ounces of oil of bays, two ounces of amber ; and stir them together over a gentle fire. Take of litharge, one pound ; calamine, one pound and a half ; of oil of olives, two pounds ; of linseed oil, one pound ; boil these likewise over a gentle fire, stirring all the while with a spatula : and when they are all mixed, add yellow wax and colophony, of each one pound ; and after these are melted and mixed with the preceding, boil again to the consistence of a plaster.

Emplastrum Opiatum.

An Anodyne Plaster.

Take the greater diachylon, four ounces ; quicksilver, two ounces ; opium, an ounce ; mix, *f. a.*

This is best made by a fresh composition of the diachylon, and then incorporating the quicksilver with

with the due quantity of turpentine; and the opium is best dried, and reduced to a fine powder, which is troublesome enough, and requires time; for it is almost impossible to make it incorporate with any aqueous humidity in it, as it will have in extract, and by straining. This is calculated to give ease in arthritic pains, and all such as arise from acrimonious humours vellicating the fibres, whether from venereal or common scorbutic causes.

Emplastrum Podagricum.

A Plaster against the Gout.

Take opium and Venice soap, of each two ounces: *diachalcitis*, eight ounces: make all into an emplaster, *f. a.*

The common diachylon may be used for *diachalcitis*. It differs from the foregoing only in the soap. Wherever the gout fixes, and begins to swell, lay a plaster of this pretty thick and broad upon it; and though it may not immediately abate the pain, yet it will gradually waste the matter which occasions it, and render the fibres less sensible of its vellications till the fit is over. In all tumors likewise, attended with sharp pain, this is an useful application.

Emplastrum ad Strumas.

A Plaster against the Evil.

Take hemlock plaster, with ammoniacum, four ounces; of gum elemi half an ounce; of corrosive sublimate, ten drachms: mix, *f. a.*

This is contrived as efficacious for the purpose as the operation of any thing of the kind can be bore with, for it is almost so corrosive as to make an eschar. If the

glands are ever so much indurated by matter of any sort whatever, this will either loosen and dislodge it, or fetch off the substance itself, if long enough applied; but great caution ought to be had in regard to the nature and texture of the part to which it is used, because near large vessels or tendons it may do a great deal of mischief. It may also impart so much of the sublimate, if applied to parts which are very lax and glandulous, as to raise a salivation.

Emplastrum Vernifugum.

Plaster against Worms.

Take powder of aloes, an ounce; colocynth and myrrh, of each three drachms; leaves of favin, rue, common wormwood, tanfy, walnuts, and bryony root, of each two drachms; yellow wax and resin, of each four ounces; oil of rue, two ounces; mix all into a mass for an emplaster, *f. a.*

This is ordered to be spread thick upon leather, and laid broad upon the belly; and to children it will this way sometimes prove cathartic, and assist in dislodging that slime which breeds worms, and the worms themselves if bred.

Emplastrum Arthriticum.

Gout Plaster.

Take of the greater diachylon six ounces; *oxycroccum* and *diachalcitis*, of each two ounces; bear's grease and deer's-marrow, of each an ounce and a half; tacamahac, two ounces, dissolved in wine-vinegar; mix all together into an emplaster, *f. a.*

This is called the Frankfort gout-plaster, being first contrived by a consultation of physicians of that city.

Emplastrum

Emplastrum Arthriticum alterum.

Another Gout Plaster.

Take oil of poppies, two pounds; wax, a pound; Venice soap, eight ounces; turpentine, inspissated juice of henbane and nightshade, opium, red lead, of each six ounces; henbane seeds, in fine powder, four ounces; mix

all these into an emplaster, according to art.

Let the juices and the opium be dissolved in vinegar, in which has first been boiled for some time the red lead; next put in the oil, and afterwards the wax and soap sliced thin, and then with the turpentine boil all up to a due consistence.

B O O K V.

Of Extemporaneous Compositions.

S E C T. I.

Of Diet-Drinks, &c.

UNDER this division we intend to include all the medicated wines, ales, meads, and wheys, which are prescriptions to be met with only in chronic cases; and require a continuance, to answer any intention of moment. In all acute cases therefore the prescriber is never to turn his eye this way; but while the disorder of a constitution is gradually to be gained upon, much help may be had from this quarter.

Cephalics.

Vinum Arthriticum.

Wine against the Gout.

Take sarsaparilla, and guaiacum, of each an ounce; germanander, ground-pine, and sage dried, of each three ounces; cowslip flowers, flowers of rosemary, of each half an ounce; St. John's-

wort, six drachms; white wine, ten pounds.

These are ordered to stand in maceration three or four days, and then the wine to be strained for use; and two ounces drank twice a day for forty days together. Its title denotes its chief intention to be against the gout; besides which it is also recommended for all nervous weaknesses, and decays from cold pituitous humours, and the rheums of age.

Vinum Arthriticum alterum.

Another Wine against the Gout.

Take of guaiacum, two ounces; yellow Sanders, one ounce; cinnamon, Spanish angelica-root, *calamus aromaticus*, of each two drachms; the outer peels of oranges dried, one ounce; flowers of rosemary, lavender, the tops of marjoram, of each half an ounce; germander,

germander, sage, and ground-pine, picked from all the stalks and dried, of each two ounces; the lesser cardamoms, two drachms. Bruise all into a gross powder, and infuse in three cong. of mountain wine for two or three weeks: and then strain, and bottle close for use.

This is an admirable warm restorative, and of great service in hydropic cases and all disorders from weakness. The dose is two ounces, or a wine glass two or three times a day.

Vinum Hippocraticum.

Hippocratic Wine.

Take cloves and ginger, of each one ounce; cinnamon and nutmegs, of each two ounces; grossly beat them together, and infuse in twelve pounds of canary, with three pounds and a half of fine sugar; after some time put to it two pounds and a half of new milk, one lemon, and a few slips of rosemary; and strain it through a thick flannel till it is fine.

This comes to us recommended for a great cordial, and such undoubtedly it is. By constant use, with a little diluting, it is very good in paralytic and apoplectic dispositions. For those to whom it is not disagreeable, it may be made much more cordial by the addition of some grains of musk: but that with many is offensive. This wine, with a much larger quantity of milk, or four ounces of it to two pounds, with a little lemon, would make a very pleasant whey in fevers; where the spirits are almost conquered by a long conflict, and want some suitable recruits.

Vinum mirabile.

The wonderful Wine.

Take cloves, mace, nutmegs, cubebs, cardamoms, galangal, co-

chineal, saffron, of each one drachm, infuse in Canary, two pounds, and spirit of cinnamon four ounces; for fourteen days, then strain for use.

This makes a better cordial than the *aqua mirabilis*, which will be yet much higher, if ambergrise or musk be added. A drachm of it now and then, in moist cold constitutions, is of good service; for its warms and prevents the blood from running into those rheums and pituitous juices, which are the frequent attendants upon a declining age. But in cholerick and sanguine constitutions, such cordials as these are highly to be condemned.

Vinum Chalybeatum.

Steel Wine.

Take filings of iron, eight ounces; roots of eryngo, elecampane, of each one ounce and a half; cloves, mace, cinnamon, ginger, of each three drachms; ceterach, flowers of rosemary, of broom, epithymum, of each two pugils: white wine, six pounds. Digest all together six or eight days, and then filter for use.

Compositions with steel are always prescribed as restoratives, detergents, or hysterics; and they very properly belong to any one of those intentions, according as the ingredients are selected with which they are joined: and therefore, though it may be known from our explanation of the operation of chalybeats, how this main ingredient may, by different circumstances and management, be turned either of those ways; yet when brought into composition, care ought to be taken that what is joined with it falls into the intention that particular composition

is designed for. And this regard gives a place to compound chalybeates under different classes.

Vinum Chalybeatum alterum.

Another Steel Wine.

Take filings of steel, four ounces; rue, penny-royal, of each two handfuls; piony and cassamunair roots, of each one ounce; saffron, two drachms. Infuse in four pounds of sherry for fourteen days; then filter for use.

This medicine promotes the menstrual discharges; for which reason many kinds of fits and convulsions are removed by it; and after a continued use of it some time, it is said to dispose to conception. The quantity of two or three ounces twice every day is sufficient, if continued some weeks.

Stomachics.

Vinum Stomachicum.

Stomach Wine.

Take the roots of Virginia snake-weed, and gentian, of each three drachms; galangal, cloves, cubebs, mace, nutmegs, saffron, of each a drachm; cochineal, half a drachm; Canary, three pounds; infuse for some days, and then strain for use.

This is a warm composition, and may be of service to cold stomachs, and such as are troubled with wind and flatulencies; but it is too hot for many, wherefore we prefer the following.

Vinum Stomachicum alterum.

Another Stomach Wine.

Take gentian root, half an ounce; galangal, *calamus aromaticus*, Spanish angelica-root, of each two drachms; centaury-tops, an ounce; the outer peel of Seville oranges

with their juice, N^o 3; saffron a drachm: infuse in four pounds of sherry for fourteen days, shaking the vessel often; then strain and filter for use.

This is a most grateful stomachic, and greatly mends a bad appetite; it is a wonderful help in cold constitutions, and such as are inclining to dropsies and cachexies from corpulency; the acid juice of the oranges mightily takes off both the heat and taste of the bitters. It may be drank twice or thrice a day; when the stomach is most empty.

Crevissa Stomachica amara.

The Bitter Stomachic Ale.

Take centaury-tops, and of Roman wormwood, of each four handfuls; gentian-root, two ounces; Seville orange-peels, the outer yellow part, N^o 6; Spanish angelica-root grossly powdered, and Winter's bark, of each an ounce: put all into cong. six or eight.

This is a pleasant bitter, and very cordial and strengthening to the stomach: the custom of taking it is a glass every morning fasting, or about an hour before dinner.

Vinum amarum pro OEnopolis.

Bitter Wine for Vintners.

Take tops of centaury, twelve handfuls; gentian root sliced, a pound; juniper-berries, a pound and half; Seville oranges, the outer peels, and their juice, N^o 12; lemon-peels, and juice, N^o 6; steep for fourteen or twenty days in white port wine cong. 20; Canary cong. four.

Our common taverns do not make a bitter by much so good as this, and nothing can be more grateful, wholesome, or easier made: but this is to be said in general

neral against whetting, as it is usually called, in a morning, which some accustom themselves to; that though one glass, when the stomach has by debauch, or any other accident from distemper, been palled, or weakened, is of service by warming its fibres, and giving them a due tenacity, in which chiefly consists a good appetite and digestion; yet when the stomach is perhaps already too warm from a high diet and frequent tipping, this practice will in process of time disable it from doing its proper office.

Detergents.

Vinum Scelotyrbicum.

Wine against the Scurvy.

Take sorrel, brooklime, water-creffes, and garden scurvy-grass, of each three handfuls; roots of elecampane, horse-radish, of each an ounce and half; seeds of scurvy-grass, an ounce; white-wine, four pounds; let all digest two days together, then press out hard for settling and use.

This is much of the same use as the *succi scorbutici*; but for a cold stomach is somewhat better; a wine-glass may be drank of it twice a day for some weeks together, and will do good in any scorbutic disposition.

Vinum Enulatum.

Elecampane Wine.

Take green elecampane-root, white sugar, and currants cut small, of each four ounces; infuse them fourteen days cold in four pounds of white port.

This is an easy liquor both to make and take, and will do service in such who have weak lungs, that are often apt to be stuffed with phlegm, which it deterges, pre-

vents ulcerations, and such injuries as would bring on a consumption; all asthmatic persons therefore would do well to use this in plenty, especially in the winter-time.

Vinum Pectorale.

Pectoral Wine.

Take juice of liquorice, an ounce; saffron, a scruple; seeds of coriander, caraway, anise, of each two drachms; salt of tartar, half an ounce; penny-royal water, eight ounces; Canary two pounds; let them all digest cold for some days, then strain for use.

This assists in expectoration, and helps to deterge and cleanse the glands of the bronchia and neighbouring parts. It may be drank warm two or three times in a day, or almost at pleasure.

Vinum Scorbuticum.

Wine against the Scurvy.

Take garden scurvy-grass gathered dry and unbruised, one handful; horse-radish root scraped, half an ounce; Winter's bark, grossly powdered, two drachms; arum-water and white wine, of each one pound. Infuse them cold for three days.

The arum-water is not kept made by any; it must therefore be made on purpose, when the plant is green, or else the root may be put in, fresh gathered, with the horse-radish. The whole makes a warm biting medicine, and a good antiscorbutic. It helps to dissolve fizy and viscid humours. It quickens the motions of the fluids, and promotes the thinner secretions; whence in dropsies and all cachexies from sluggish watery humours, it may be of good service. It may be drank at discretion.

Serum.

Serum Scorbuticum.

A Whey against the Scurvy.

Take leaves of succory and sorrel, of each twelve handfuls; firs-tops, scurvy-grass, and water-cresses, of each four ounces; coriander-seeds, one ounce. When bruised, add to them juice of oranges, four ounces; common whey, four pounds. After a little standing, press out hard, and sweeten with a little fine sugar, and clarify for use.

This is a cooling cleansing liquor; but cannot extend its efficacy much beyond the *primæ viæ*, and the urinary passages. It will not keep long, and therefore must be made almost daily. Two or three pints in a day is the usual quantity ordered to be taken.

Diuretics.

Vinum Hydropicum.

Wine against the Dropsy.

Take blue flower-de-luce root, one ounce; elecampane and squills prepared, of each half an ounce; horehound, one handful; bark of elder roots and dwarf-elder, of each one ounce; sena, one ounce and a half; agaric, two drachms; ginger, one drachm; white wine, four pounds. Infuse all for fourteen days, and then strain for use.

Or Thus. Take ashes of broom, and juniper, of each one ounce; Rhenish wine, three pounds. Mix and make a lixivium; to which add blue flower-de-luce roots, one ounce and a half; the inner bark of elder-root, and dwarf-elder, of each one ounce; bark of bitter-sweet, half an ounce; rhubarb, two drachms; mechoacan, half an ounce; sena, one ounce; caraway-seeds, six drachms; bark of sassafras and Winter's cinnamon, of each four scruples. Infuse warm

for twelve hours; then add white sugar, five ounces; damask-rose leaves, two handfuls; after due infusion, strain for use.

The latter of these is the better; if the sena be left out, it is a better diuretic; for the less it goes off by stool, the more it will get into the blood, and discharge its serous parts by urine. It is therefore designed for hydropic constitutions; and will do service where there is a tendency that way, if begun within time, and closely followed. The usual dose is three ounces every morning fasting. This is from Bates; and Fuller gives the same with little alteration.

Vinum Ictericum.

Wine against the Jaundice.

Take turmeric in gross powder, two ounces; saffron, two scruples; cochineal, four scruples; millepedes, N^o 320; Canary, two pounds; infuse all six or seven days, then strain for use.

This is easily made, and not unpleasant to drink; but white port seems a fitter wine for this purpose than Canary. It is very good for what its title expresses; and may be drank, two ounces, three or four times in a day: but the following we recommend as the most efficacious.

Vinum Millepedum.

Hog-Lice Wine.

Take hog-lice, half a pound; put them alive into two pounds of white port wine; and after some days infusion, strain and press out very hard; then put in saffron, two drachms; salt of steel, one drachm; and salt of amber, two scruples; and after three or four days, strain and filter for use.

This is an admirable medicine
L 1 2 against

against the jaundice, dropſy, or any cachectic habit. It greatly deterges all the viſcera; and throws off a great deal of ſuperfluous humours by urine. It may be given twice a day, two ounces at a time.

Cereviſia Hydropica.

A Drink for the Dropſy.

Take broom-aſhes, half a pound; roots of horſe-radish, four ounces; orris, *calamus aromaticus*, elecampane, of each two ounces; guaiacum, ſaffafras, juniper-berries, daucus-feed, of each one ounce; muſtard-feed, two ounces. Hang all in a bag in four cong. of ale while it is working.

The laſt mentioned author gives us this alſo, with high commendations for hydropic caſes. The doſe is one pound every morning faſting.

Cereviſia Juniperina.

Juniper Ale.

Take juniper-berries well bruifed, four ounces; raiſins of the ſun, half a pound; hang them in four cong. of ale.

This is grateful both to the ſtomach and palate; breaks off wind, cleanſeth the kidneys, and waſhes off gravel and ſand; to be drank of two or three times a day.

Cereviſia Junipera altera.

Another Juniper Ale.

Take juniper-berries well bruifed, one pound; raiſins of the ſun ſtoned, half a pound; pine-tops, St. John's wort, agrimony, centaury, of each four handfuls; gentian-root ſliced, *calamus aromaticus*, Spaniſh angelica-root, and Winter's bark, of each one ounce. Put all together into a bag for nine cong. of ale.

This is good for all the inten-

tions of the former; and is a better ſtomachic. Some public-houſes now make and ſell this under the ſame title.

Serum Sinapium. Muſtard-Whey.

Take milk, two pounds; boil it and turn it with three ſpoonfuls of muſtard-feed; take off the curd, and keep the whey for uſe.

This does but little differ from the muſtard-ale before deſcribed; only it may be better than that in ſome caſes, where malt liquors are not convenient.

Hydromel. Mead, or Metheglin.

Take of the beſt honey, ten pounds; common water, three cong. boil them together till an egg will ſwim upon it when cold: then let it ſettle in a clean veſſel, and decant the clear into a barrel, and to every five pounds put two ounces of true French brandy, and ſtop it up.

This will ferment without any other help; and if it be kept ſome time, it will make an agreeable liquor. Some put herbs to this, according to their ſeveral intentions; and thereby render it more or leſs detergent, diuretic, baſamic, or the like, according to the virtues of ſuch ingredients.

Cathartics.

Serum Catharticum.

Purging Whey.

Take freſh damask-roſe buds picked, an ounce; put them into two pounds of whey over night, and ſtrain out, and drink it the next morning.

This is a mighty purge with ſome of our country people; it will work very kindly and thoroughly, and is therefore good to cleanſe the fiſt paſſages; the quantity

tity of rose-buds may be varied, as a person would have it in strength.

We have been somewhat larger under this division than our room here will allow under any other, because this seems to be most for

the service of common people, who are not willing, or cannot well have recourse to the shops for every dose of physic they take; and we have also for such reasons been fuller in explaining their virtues and manner of operation.

S E C T. II.

Of Decoctions, Infusions, and Emulsions.

UNDER the first of these is included all that part of extemporaneous Pharmacy which is employed in drawing out the medicinal virtues of simples by boiling; and these in common prescriptions are also frequently called apozems. The next is different in this only, that the ingredients are steeped in hot liquors, in the manner that tea is commonly made. And the latter is drawing out the oily or milky part of seeds or kernels by confusion, with proper liquors. Most things concerned herein are balsamics, detergents, and cathartics; for decoction is not so proper for cephalics. &c. because it exhales the more volatile parts, in which the virtues of all of those ingredients consist. The harder bodies, as woods, dried roots, &c. require most boiling; but herbs and seeds need only be scalded, which makes it necessary that, in many compositions of this kind, some of the ingredients should not be put in till the other have boiled some time, sooner or later, according to their texture, which must always be directed by the judgment of the compounder. Re-

stringent decoctions, and most of the cathartics may, for greater elegance and pleasantness to take, be clarified; but all such as are emollient, are by no means to be so managed; emulsions, if carefully made, are a very neat form; but a very small part of the *Materia Medica* is reducible thereto, or only those seeds which yield a soft milky juice; and therefore the only intention which this form can properly be prescribed for, is that of an emollient, though indeed we have given some few for other purposes, but they are not so suitable. Oils likewise may, by the help of an egg, and a little of any of the turpentine balsams, be reduced under this head; and, well managed, will make an elegant medicine, as we shall find in some following instances.

Cephalics.

Decoctum Chamæpityos.

Decoction of Ground-Pine.

Take ground-pine dried, two handfuls; flowers of stœchas, two drachms; male piony roots an ounce: boil in three pounds, to two pounds; strain, and add spirit

of scurvy-grass and lavender, of each an ounce; mix.

This is recommended to be drank constantly for some time, viz. a quarter of a pint three times a day, with twenty drops of spirit of sal ammoniac, to prevent the gout, and distempers of the head and joints.

Emulsio Pœoniata.

Piony-Emulsion.

Take piony-seeds husked, an ounce; distilled waters of rue, black cherries, and compound piony-water, of each six ounces; and with pearl-sugar, an ounce and half, make an emulsion, *f. a.*

This prescription stands in Bates marked for one of those much used in his own practice; and a physician of great note, hardly ever omitted it as an auxiliary in all nervous cases, and such as affected the head with apoplexies, epilepsies, and the like; but it is not alone to be trusted: it may be drank at pleasure.

Emulsio Pœoniata Fulleri.

Dr. Fuller's Piony-Emulsion.

Take piony and white poppy-seeds, and blanched almonds, of each half an ounce; fine loaf-sugar, an ounce; oil of nutmegs, two drops; beat them well together, and with two pounds of black-cherry-water, make an emulsion, to which put compound piony-water, an ounce.

Its author advises it in epilepsies, and all convulsive diseases, and says it is of egregious use in fevers with the head-ach, frightful dreams, and snatching of the tendons; its dose is from two to four ounces every six hours.

Emulsio Analeptica.

The restorative Emulsion.

Take barley-water, four pounds;

cubebs, pippins, and leaves of colts-foot, of each four ounces: boil to the consumption of half; which strain, and make an emulsion with sweet almonds blanched, half an ounce; melon seeds, and pistachio nuts, of each an ounce; candied eryngo, an ounce and a half; and to it, when finished, put damask rose-water, two ounces.

This is a softening, emollient, restorative medicine, and will nourish and preserve the nerves against such irritations as draw them into spasms and convulsions; it may be drank at discretion.

Infusio Paralytica.

The paralytic Infusion.

Take horse-raddish root sliced thin, and mustard seed not bruised, of each four ounces; infuse them in four pounds of boiling water for twenty-four hours, close covered.

This is very pungent, spirituous, and well fitted to warm and stimulate the fibres which have lost their tone: it is also successfully prescribed for some rheumatisms that swell the limbs with great pain; to be drank four ounces two or three times a day.

Hysterics.

Decoctum Emmenagogum.

An Apozem to promote the Menses.

Take roots of smallage, two ounces; *calamus aromaticus*, bayberries, of each two drachms; zedoary, cubebs, of each a drachm and a half; mace, two scruples; galangal, grains of paradise, of each half a scruple; dittany of Crete, penny-royal, of each a handful; boil in two pounds of water and a pound of white-wine, to twenty-

twenty-eight ounces; and when it is strained, add tincture of saffron, an ounce; and mix for use.

This warms and invigorates the blood, by which its motion in the uterine arteries is increased, so as to break open their extremities; the operation is promoted by purging before hand, and keeping warm: to be taken from four ounces to half a pound, twice a day, using moderate exercise with it.

Decoctum hystericum.

An hysteric Apozem.

Take rue, penny-royal, mugwort, and stinking orach, of each a handful; roots of cassamunair, long birthwort, of each an ounce; Seville orange peels dried, two drachms; saffron, a drachm: boil all in two pounds of water, to one pound four ounces; which strain and clarify, and add to it of bryony water compound, four ounces; syrup of saffron, an ounce; and put up for use.

This is very readily made, and is a good vehicle to subjoin to any other forms of hysteries, for it is not greatly to be depended upon alone; its dose is four ounces twice or three times a day.

Emulsio hystERICA.

An hysteric Emulsion.

Take asa foetida, two drachms; dissolve cold in a mortar, with a pound and a half of penny-royal water, and strain for use.

This is tolerable, for its stinking scent, but to few; yet where it can be got down, it is very prevalent in checking the inordinate orgasm of the spirits, and preventing those convulsions and frenzies of mind which arise therefrom; it may be drank in the quantity of

two ounces, according to the urgency of symptoms.

Strengtheners, Restoratives, &c.

Decoctum Album.

The White Drink.

Take powder of burnt hartshorn, two ounces; spring-water, three pounds: boil to the consumption of half, with a crust of bread in it, and a piece of cinnamon; then strain, and sweeten it with fine loaf-sugar.

Bates orders it with syrup of lemons instead of sugar; but it is more constantly made this way, and best approved of: it is become the common drink in all acute diseases, attended with, or inclining to a looseness: it is agreeable in the small-pox and measles in the like circumstance.

Decoctum rubicundum.

The red Drink.

This is the same with the former, only tinged with cochineal; or if the diarrhœa is urgent, with two or three drachms of tormentil-root. To every two pounds also are added four ounces of barley cinnamon-water, or plague-water, according to the state and symptoms of the fever.

Decoctum contra Diarrhœam.

A Drink to stop a Looseness.

Take bole Armeniac, an ounce; soft white chalk, three ounces: boil in three pounds of spring-water to twenty-six ounces; strain, and let it subside, and to the clear poured off, add disscordium, half an ounce; cinnamon-water, syrups of quinces and of dried roses, of each two ounces.

This is much more efficacious

L 1 4 than

than either of the former, and must be had recourse to when the symptoms are urgent, about four ounces given at a time, shaking the bottle; and there are very few diarrhœas that will not yield to it.

Decoctum Fracastorii.

Fracastorius's Decoction.

Take diascordium, six drachms; alexiterial milk-water, ten ounces: boil to eight ounces; strain, and add mint-water, half an ounce; strong cinnamon-water, two ounces; syrup of diacodium, an ounce and a half.

This bears the name of the author of the Diascordium, a famous Italian physician; and Dr. Fuller says, it has even divine virtues against a diarrhœa; for it most potently, and almost beyond any thing else, stops sick fits, and gripings of the bowels, and is of great use in fevers attended with a symptomatic flux of the belly; three or four spoonfuls are ordered every two or three hours, or after every stool. There is also another by the title of Fracastorius's smaller decoction; but it differs from this in nothing material, besides not having the diacodium, whence it is not so effectually restraining.

Decoctum Mastiches.

The Mastich Decoction.

Take mastich, an ounce; mace, a drachm; and the bottom of a well-baked white loaf: boil all in the decoction of burnt hartshorn, settled and clear, three pounds to two; when strained, add four ounces of conserve of red roses, which infuse hot for four hours; then strain through a flannel, and

put to it strong cinnamon-water, two ounces.

This has much of the virtues of the foregoing, and is to be used for the same purposes, in equal doses; as is also the following.

Decoctum restringens.

A binding Decoction.

Take green oak-bark, peeled from the small branches, four ounces; boil it in the white drink, cleared by subsidence, four pounds, to two; pour it boiling hot upon powder of cinnamon, two drachms; nutmeg, a drachm; mace and cloves, of each half a drachm; and when cold, strain out, and sweeten it with syrup of quinces.

In all the foregoing apozems, under this division, there is choice, from the gentlest to the most efficacious restraining; the practitioner, therefore, may use what best fits the urgency of symptoms.

Decoctum Dysentericum.

A Decoction against the bloody Flux.

Take the under crust of three loaves of wheaten bread, and boil it in spring water, six pounds to one; and at last put in cloves, two drachms; strain, and add claret, a pound, and fine loaf-sugar, a sufficient quantity.

This is a good kitchen remedy, where recourse cannot be conveniently had to the shops, and is useful in all kinds of fluxes, as well as in what its title expresses. Of the same kind is likewise the following.

Decoctum Catechu.

A Decoction of Japan Earth.

Take Japan earth, two drachms; boil in a pound of spring-water to twelve

twelve ounces : let it stand to subside ; and having poured off the clear, add strong cinnamon-water, and syrup of quinces, of each two ounces.

Decoctum Catechu comp.

A compound Decoction of Japan Earth.

Take guaiacum and assafras, of each three drachms ; yellow and red sanders, of each two drachms ; powder of Japan earth, half a drachm ; liquorice, an ounce ; dried sage, a handful : boil in barley-water, three pounds to thirty ounces ; strain, and, when settled, add to it diacodium, two ounces.

This is not only fitted to stop the drain of humours falling too fast upon the bowels, but also to assist their discharge by transpiration ; and is good in all such kind of fluxes, and tickling catarrhs, as occasion coughs, disorders of the breast, and sometimes reach even to the joints, and cause arthritic and rheumatic pains ; it is directed to be given from two to four ounces, three times in a day.

Decoctum Catarrhale.

A Decoction against Catarrhs.

Take yellow and red sanders, of each two drachms ; guaiacum, assafras, of each half an ounce ; liquorice, an ounce and half ; raisins, an ounce : boil in barley-water, three pounds and a half to two pounds ; adding, at last, juice of hounds-tongue, four ounces ; and strain for use.

This is not so good as the foregoing, although purposely calculated for this intention ; four ounces of it are ordered three times a day.

Decoctum ad Rachitidem.

An Apozem against the Rickets.

Take roots of polypody of the oak, of smallage and fennel, of each an ounce ; liquorice and aniseeds, of each half an ounce ; hart's-tongue, maidenhair, dodder, betony, celandine, and tamarisk, of each a handful ; blue currants, four ounces ; barley-water, four pounds : boil to the consumption of half ; and then strain for use.

This is to be given three or four spoonfuls, as many times in a day, according to the age of the child.

Decoctum Cannibinum.

A Decoction of Hemp-Seed.

Take hemp-seed bruised, three ounces ; agrimony, shepherd's-pouch, plaintain, knotgrafs, of each a handful and a half : boil in six pounds of water, to four ; and sweeten the strained liquor with fine loaf sugar.

This is with some a secret, and a specific for involuntary pissing of blood ; the dose is from four ounces to half a pound, twice in a day.

Decoctum incrassans.

An incrassating Decoction.

Take gum arabic, grossly powdered, three ounces ; boil in water (carefully stirring it, that it burn not to the bottom) from two pounds to twenty-eight ounces, and sweeten it with syrup of marshmallows, four ounces.

This mightily thickens acid, thin humours, and, as, it were, sheathes up the sharp points of their salts ; it is a very good remedy, and easily procured, against scalding of urine ; it helps in a diabetes, and tickling coughs.

Decoctum Liberans.

A Decoction called Liberans.

Take sarsaparilla, six ounces ; currants cut small, eight ounces ; infuse according to art, and boil in water, twelve pounds to six ; when it is cold, cast into it half a pound of unslacked lime : let it subside, and pour off the clear, and keep it in bottles for use.

We are told this gives great relief in defluxions, strumas, the diabetes, and in running ulcers : it is, without question, a good sweetener, as may be gathered from the virtues of the quick-lime and the sarsa.

Decoctum edulcorans.

A sweetening Decoction.

Take sarsaparilla and China roots, of each three ounces ; yellow and red sanders, of each six drachms ; infuse, and boil in twelve pounds of water, to the consumption of half, which strain for use.

This may be sweetened with sugar, for those who want it more palatable ; and it ought to be made the common drink in all ill habits, as dropsies, leprosy, and venereal infections, and such as proceed from too much moisture, or from fluids too sharp and saline. Decoctions of this kind, consisting of hard ingredients, should stand some hours to steep before they are set upon the fire, that they may soak through, and the better yield their virtues.

Decoctum sanctum.

The holy Decoction.

Take guaiacum, an ounce : boil it in four pounds of water to two ; adding, when it is half boiled, raisins, an ounce ; juice of Spanish liquorice, two drachms ; and strain it for use.

If this be desired more restraining, two drachms of Japan earth may be added ; and instead of liquorice and raisins, conserve of red roses may be put ; it is a good sweetener, and may be used as common drink for all the purposes mentioned under the foregoing.

Decoctum Sarsaparilla.

Decoction of Sarsaparilla.

Take sarsaparilla, three ounces ; boil in four pounds of water to two ; and strain.

One grain of corrosive sublimate dissolved in an ounce of brandy, and added to this decoction, renders it a very powerful medicine for every stage of the venereal complaint.

Decoctum stypticum.

A styptic Decoction.

Take roots of nettles and comfrey, of each an ounce and half ; the herbs yarrow and plantane, of each a handful ; pomegranate-peel and gum arabic, of each two drachms ; seeds of white poppy, and henbane, of each three drachms ; boil in three pounds of water to twenty-eight ounces ; strain, and add sugar of lead, a scruple ; astringent saffron of iron, four scruples ; syrup of dried roses, four ounces ; mix.

The saffron of iron is ill added, because it will not dissolve so in it, but make it thick and irksome to take ; if that is therefore to be depended upon, it is much better given in a bole, or some such form ; the sugar of lead will indeed dissolve : this is said to cool and thicken a hot sharp blood, and to strengthen and corrugate the fibres, so as to close up the mouths of the blood-vessels, and stop involuntary fluxes

fluxes of blood; four ounces may be given twice a day.

Decoctum Pectorale.

A Pectoral Decoction.

Take farsaparilla and China, of each half an ounce; dried white poppy-heads (cut and beat with the seeds), Malaga raisins stoned, of each an ounce; liquorice, half an ounce; Japan earth, two drachms: boil all in strong ale-wort, four pounds to thirty ounces; adding, towards the latter end, balsam of Tolu, three drachms; and at last seeds of caraway, and sweet fennel, of each two drachms; when cold, strain out the liquor for use.

Dr. Fuller orders oil of aniseeds, and many other things very unsuitable for this form, and what may, with much more convenience be taken otherwise, if required at the same time; this is made a common drink, or used two or three times in a day, for most distempers of the breast, and even in some consumptions, for which it is a good remedy.

Decoctum Limacum.

A Decoction of Snails.

Take garden snails cleansed from their shells, N^o 12; new red-cow's milk two pounds; boil to a pound; and add rose-water an ounce; sugar-candy half an ounce.

It will be very difficult to boil this so long as to waste one half, because it will be apt both to run over and burn to the bottom, and therefore must be stirred all the while: this quantity is ordered to be drank every morning, and it is a noble restorative in consumptions, especially for younger people, who have not fallen into that state through intemperance.

Decoctum Antiphtisicum.

A Decoction against Consumptions.

Take ox-eye daisy flowers dried, a handful; snails washed clean, Numb. 3; candied eryngo root, half an ounce; pearl barley, two ounces; boil in spring-water from a pound to half a pound; and then strain for use.

This brings in a supply of such soft and inoffensive nourishment, as gives no trouble to a weak constitution, and therefore is of service in consumptions, hectic fevers, night sweats, &c. the patient must drink four ounces of this warm, with an equal quantity of milk, twice a day.

Decoctum Balsamicum.

A balsamic Decoction.

Take Malaga raisins stoned and sliced, two ounces; roots of China, farsa, liquorice, of each half an ounce; shavings of hartshorn and ivory, of each two drachms; tops of St. John's wort, a handful; boil in clear barley-water three pounds to thirty ounces; adding, when it is half boiled, balsam of Tolu, three drachms; when it is cold, strain, and add syrup of raspberries, two ounces; and mix for use.

This is also recommended in consumptions, as the former, to be drank two or three times in a day, a little warm, with milk.

Emulso Cretacea.

The Chalk Emulsion.

Take white chalk in fine powder, three ounces; barley-water, three pounds; boil to two; when cold, make it into an emulsion with the four greater cold seeds, of each two drachms; sweet almonds, N^o 8; then add chalk in fine powder, three drachms; pearl-sugar,

sugar, an ounce, or enough to make it palatable.

This makes a pleasant remedy in a diarrhœa; but in Bates there is diacodium ordered very injudiciously, because it deforms the medicine; that therefore, if wanted, may be given in some other vehicle; but this is an error most fall into for want of better acquaintance with officinal management; this ought to be shock as often as taken, which may be two or three times a day, about four ounces at once; it is also infallible in removing the heart-burn almost instantly.

Emulso cum C. C. C.

An Emulsion with burnt Hartshorn.

Take of the white drink two pounds; sweet almonds blanchèd, white poppy seeds, of each half an ounce; make an emulsion; to which, when strained, add two ounces of strong cinnamon water, and of fine loaf-sugar an ounce, or what is sufficient.

This has the virtues of the white drink, but is more emollient, and therefore preferable, where the humors are very sharp.

Emulso styptica.

A styptic Emulsion.

Take comfrey root cut small, four ounces; boil it in three pounds of water to two; strain out the liquor, with which, and sweet almonds blanchèd, white poppy and hen-bane seeds, of each half an ounce; and white sugar what is sufficient, make an emulsion, wherein dissolve *sal prunel.* a drachin, and sugar of lead a scruple, *f. a.*

It cools and thickens the blood, closes up the mouths of the vessels,

and is of service in bleeding at the nose, spitting of blood, the hæmorrhoids, and overflowing of the menses; the dose is four ounces two or three times in a day, as symptoms require.

Emulso edulcorans.

An edulcorating Emulsion.

Take barley-water two pounds; dissolve in it gum arabic three ounces; and put thereto crabs eyes finely levigated, an ounce and half; fine sugar a sufficient quantity.

This infallibly cures the heart-burn; thickens and sweetens the blood; is good in stranguries and gonorrhœas; and of service in all complaints from sharp humors.

Emulso balsamica.

A balsamic Emulsion.

Take balsam of Tolu, six drachins; boil it in fine barley-water, three pounds to two; when cold strain, and with sweet almonds blanchèd six drachins, balm of Gilead sixteen drops, white sugar a sufficient quantity, make an emulsion, *f. a.*

This is a noble balsamic; but the decoction of the Tolu balsam ought to be made in a circulatory heat, with so much water only as is required, else its best volatile parts will be lost. This is good in all distempers of the breast, in all inward decays and ulcerations, in consumptions, and is excelled by nothing in a gonorrhœa; to be drank at pleasure.

Infusio Antiphthisica.

An Infusion against Consumptions.

Take leaves of the great comfrey, Solomon's seal, plantane, and burnet, of each four handfuls; liquorice-root, two ounces; infuse them

them cold for twelve days in two gallons of lime-water.

This is chiefly for such consumptions as proceed from a sharp thin blood, especially in those who have been infected with a venereal taint, or are inclined to scrophulous and leprous humours, and have by them been worn into a hectic; it may be used as a common drink.

Infusio Liberans.

Take of the shavings of saffras, two ounces; guaiacum, an ounce; liquorice, three ounces; coriander-seed bruised, six drachms; infuse them cold in cong. i. of lime-water for two or three days.

This is more drying than the former, to be used in the same manner, and the like cases; these are both published as medicines used in our public hospitals.

Infusio Urticarum.

Infusion of Nettles.

Take nettle-roots fresh gathered four ounces; of the herb two ounces; and of the seeds, with those of daucus, anise, cummin, of each half an ounce; lime water, four pounds; set them into a warm oven to infuse (close stopp'd up) twelve hours; decant the clear liquor, and in twenty-eight ounces of it dissolve gum arabic, two ounces; crude alum, thirty-two grains; diacodium, four ounces.

In a diabetes, and for bloody urine, or ulcers of the urinary passages, give four ounces for a dose: and repeat it as symptoms are urgent.

Infusio Rosarum comp.

Compound Infusion of red Roses.

Take red rose leaves, and balaustines, of each two drachms; oak-bark, half an ounce; spring-wa-

ter, two pounds; give a warm infusion for twelve hours, then strain, and add barley-cinnamon-water, four ounces; white sugar, as much as is sufficient.

This powerfully astringes, and must be used with caution.

Succus ad Hæmorrhoides.

A Juice to stop the bleeding of the Piles.

Take juice of yarrow depurated, one pound; sugar two drachms. Mix for use.

Dr. Fuller speaks largely in commendation of this, and digresses somewhat to an information concerning juice of apples, which we shall take leave to transcribe. When the flux of the hæmorrhoids is reasonable and moderate, this purgeth the body of feculent gross blood, and preserves from and cures many ill distempers, such as the pleurisy, scurvy, leprosy, cancer, melancholy, hypochondriasm, madness, schirrous tumors of the viscera, &c. But if by loss of strength, pain in the back and thighs, failing of appetite, squalid habit of body, greenish or dusky colour, and deadness of look, it appears that the flux is too great, and ought to be moderated; then this (easily procured) styptic may bring good assistance; and was the great secret of a certain great physician. And Riverius saith, the decoction of yarrow, used as common drink for three days together, happily takes off the pain of the piles. The dose is three or four ounces twice in a day.

Of all juices, I account that of apples beyond compare the best, because nature hath wrought it up to a much higher degree of generosity and maturity, than that of crude trashy herbs, which afford nothing

nothing of that delicate dulco-acid, aromatic, and odoriferous liquor issuing from some of our fine sorts of apples, such as Kentish, golden pippins, &c. And what Simon Pauli hath said against them, I take to be from a mistaken prejudice. They are not fit for medicinal use, till they have been gathered a while, and sweat in a heap. The best way is not to drink their juice (as in cyder) because that will gripe and purge some people; but to eat them raw, or scoop out, and eat the pulp for a long course of time every morning. Thus have they given more help to scorbutic and splenetic patients, (especially such as were of a hot and dry constitution, and apt to be costive) than any thing else the shops or fields could furnish out. I knew one who used to eat thirty every day for his breakfast. And Dr. Baynard highly cries them up as a most noble pectoral having twice cured himself of a confirmed consumption by their use.

Emollients, Vulneraries, &c.

Decoction Mallowæ.

The Mallow Decoction.

Take whole mallow-leaves, eight handfuls; boil them in eight pounds of water, to six pounds. Let the liquor run through a sieve of itself, without squeezing: put into it more mallows, about four handfuls; boil again to four pounds; strain again, let it stand to settle, and then pour off the clear, and put into it marsh-mallow-roots, four ounces; liquorice, raisins, of each one ounce; gum arabic, half an ounce; sal prunel. two drachms; boil to thirty ounces; and after it is strained,

sweeten it with syrup of marsh-mallows, two ounces, for use.

This is a most excellent emollient diuretic. It likewise sheathes all saline particles, blunts the acrimony of the humours, thickens tickling rheums, and lubricates the passages.

Decoction Pectorale.

A pectoral Decoction.

Take pearl-barley, raisins of the sun stoned, of each one ounce; figs, dates, of each N^o 8; liquorice, half an ounce; aniseeds, to be added at last, two drachms; boil in three pounds to two pounds of water, and strain.

This does not seem to deserve quite so much as is said in its commendation: however it is a good auxiliary remedy in any disorders of the breast, and sharp defluxions; and is easily made.

Decoction Rosarum.

A Decoction of Roses.

Take conserve of red roses, two ounces; Malaga raisins stoned, one ounce; liquorice, melon seeds, of each half an ounce; barley-water, three pounds; boil to two pounds, and strain through a flannel.

Dr. Fuller says this is a proper prescription, when muriatic salts and acrid serum oozing out of the glands, and irritating the *aspera arteria*, bronchia, and vesicles, excite a most vehement tearing cough; and yet being too thin to be taken hold of, and pumped up, lies fretting and exulcerating the lungs, until it brings on a consumption.

L. *Emulso Communis.*

Common Emulsion.

Take of sweet almonds blanched,
one

one ounce ; gum arabic, half an ounce ; finest sugar, six drachins ; barley-water, two pints : dissolve the gum in the barley-water made warm, and when the water is almost cold, pour it on the almonds, bruised along with the sugar ; then grind them together till they become milky, and afterwards strain off the emulsion.

Emulso de Sarsa.

The Sarsa Emulsion.

Take sarsa, three ounces ; lily-root, one ounce and an half ; raspings of ivory, three drachins ; infuse in water, three pounds for eight hours ; then put in raisins stoned, four ounces, and boil to two pounds ; of the strained liquor, and with the seeds of pumpkin, one ounce ; lettuce and hempseed, of each six drachins ; sweet almonds, No 8 ; the white of eggs first beat up with rose-water, N^o 2 ; and sugar-candy, two ounces ; make an emulsion, *s. a.*

Detergents.

Decoction potenter expectorans.

An Apozem that powerfully expectorates.

Take of the pectoral decoction, one pound (ordered by the College) ; compound syrup of scabious, oxymel of squills, of each two ounces ; water of walnuts comp. one ounce and a half ; infusion of *crocus metallorum*, one ounce. Mix them together.

This will not only deterge and expectorate, but, with most, even puke them. It is a good remedy to clean the glands, in those who are apt to reach and strain much in a morning ; and ought to be taken every morning early for a week together, or more ; but then its use is to be followed with tempe-

rance, and what is proper to restore the tone of those glands ; else they will be exposed to larger drains of such viscid humors than before. The dose is four ounces, warm.

Decoction Alii.

The Garlic Decoction.

Take chips of *lignum vitæ*, three ounces ; roots of zedoary, one ounce and a half ; boil them in spring-water, twelve pounds to six pounds ; towards the end adding roots of garlic, three ounces ; seeds of anise, daucus, and cummin, of each one ounce ; and to the strained liquor put spirit of scurvy-grass, half an ounce.

This is both absorbent and diuretic ; and therefore a good remedy in all errors of constitution from superfluous humidity, particularly dropsies ; and the garlic makes it also a powerful expectorant : for which purpose there is hardly a more efficacious simple ; though it also prodigiously cleanses the urinary passages : six ounces may be taken of this twice a day. The broth which some make strong with this simple, is also efficacious to the same purpose ; and according as it is sated with nutritive juices from flesh, not only helps to cleanse away a load of bad humors, but to increase good ones in their room.

Decoction Ictericum.

Decoction against the Jaundice.

Take barberry rind, and turmeric, of each half an ounce ;celandine, four handfuls ; boil in water, two pounds and a half to one pound and a half ; towards the end adding white wine, half a pound ; saffron, two scruples

This will do good service in the jaundice

jaundice, and any cachectic habit of body : to be drank as the former.

Decoctum Ilericum alterum.

Another Decoction against the Jaundice.

Take roots of turmeric and madder, of each one ounce ;celandine roots and leaves, of each two handfuls ; earth-worms slit, opened and washed clean, N^o 50 ; boil in water and Rhenish wine, of each one pound and a half to eight and twenty ounces. To the strained liquor add tincture of saffron, one ounce ; syrup of the five opening roots, three ounces ; and mix for use.

This is a well contrived composition for the intention its title bespeaks.

Decoctum Ulmi.

A Decoction of Elm-Bark.

Take the fresh inner bark of the elm-tree, four ounces ; spring-water, three pounds. Boil to the sumption of a pint.

Besides its usefulness as a gargle in many instances, it powerfully relieves various eruptions on the skin, particularly the scurfy and leprous kinds ; to this end, from a pint to a pint and a half, should be daily drank for some weeks in the spring and autumn. If with this decoction, the extract of elm-bark is given, the advantages are considerably increased.

Emulso cum Ammoniaco, seu Lac Ammonicum.

The Ammoniacum Emulsion or Milk.

Take fine gum ammoniacum, three drachms ; dissolve it in distilled vinegar, half an ounce ; Rhenish wine, two ounces ; and penny-

royal water, four ounces ; strain it for use.

The dose of this is a spoonful three or four times a day, according to the exigency of symptoms. It not only expectorates and relieves the breath that way, but is also good in the *asthma siccum*, or spasmodic asthma, where common pectorals avail nothing ; for it has peculiar influencies upon the nerves themselves ; as explained in the survey of the *Materia Medica*.

L. *Lac Ammoniacum.*

Take of gum ammoniac, two drachms ; penny-royal water, half a pint ; grind the gum in a mortar with the water, until it is dissolved.

Emulso Vulneraria.

A Vulnerary Emulsion.

Take balm of Gilcad, two drachms ; the yolk of an egg ; mix them well together, and add linseed oil cold drawn, one ounce ; and then, by a little at a time, barley-water, one pound and a half ; Canary, half a pound, *f. a.*

This is an admirable medicine, and easy to take, even for such as would loath some of the ingredients separately. In all distempers of the breast, inward exulcerations, especially of the urinary passages, and for a gonorrhœa, there can be nothing better contrived. The dose is two or three ounces twice a day ; or oftener upon pressing symptoms.

Emulso Balsamica.

A balsamic Emulsion.

Take balsam of Tolu, two drachms ; mix it well with the yolk of an egg, and make it up, *f. a.* with barley-water, two pounds.

This

This is highly balsamic and healing, and extremely grateful to take. Its dose is from two ounces to four, two or three times a day. After the same manner may be contrived pectoral decoctions into emulsions, with any of the turpentine balsams; but such as preserve them of a white colour are the neatest; the whole then looking and going down like milk.

Emulsio Spermatis Ceti.

Emulsion of Sperma Ceti.

Take equal parts of sperma ceti and of mucilage of gum arabic, rub them together in a mortar until they are well incorporated, and dilute it at pleasure with water enough to make an emulsion.

Emulſions, mixtures, and draughts of ſperma ceti are better prepared by this method than with yolks of eggs, and the emulſions, &c. ſo prepared have theſe advantages, that they are leſs diſagreeable to the taſte and leſs ſubject to become rancid. See Gum arabic.

Succus Cochleariæ Vinosus.

A Vinous Juice of Scurvy-grafs.

Take a large quantity of garden scurvy-grass, gathered in a dry season, and juice it; which put into a vessel, and ferment it with yeast like ale. After it has done working, bung it up, and keep it half a year in a cool cellar.

It is good in a pituitous and cold scurvy, and all approaches towards a dropfy; and may be drank, three or four ounces, two or three times a day; and is much pleasanter than most drinks medicated with such like ingredients.

Decoctum Amarum Aromaticum.

An Aromatic Bitter Decoction.

Take roots of *calamus aromati-*

licus and gentian, of each two drachms; galangals, four scruples; centaury-tops and dried wormwood, flowers of camomile and stœchas, of each one drachm. Boil in water, three pounds to two; adding, at the last, caraway-seeds bruised, half an ounce; and strain. Or,

Take gentian root, two drachms ; *calamus aromaticus*, Spanish angelica root, of each one drachm ; tops of centaury, Roman wormwood, of each two pugils ; coriander seeds, half a drachm. Just simmer all together in one pound of spring water ; and to the strained liquor add of compound gentian water, four ounces.

This is the most common bitter decoction, or rather infusion, now in use; and is generally ordered for four doses, to be drank fasting, and again about five o'clock in the afternoon; not eating till about an hour after.

Decoctum Corallinum.

The Coralline Decoction.

Take quicksilver, two ounces ; dittany of Crete, one ounce ; coral-line in powder, half an ounce. Boil in water from one pound and a half to fourteen ounces ; when strained, take away the mercury, and sweeten the liquor with syrup of lemons, two ounces.

This, with some, is a great secret for destroying worms in young children, and is ordered, two ounces twice a day for four days together.

Infusio Amara Chalybea.

Chalybeate Bitter Infusion.

Take gentian root, two drachms ;
Seville orange peels dried, half an
ounce ; winter's bark and Spanish
angelica root, of each one drachm :

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saffron, half a drachm; tops of centaury and Roman wormwood, of each half a handful; filings of steel, one ounce. Infuse cold in compound gentian water, and strong white wine, of each one pound, for eight days, often shaking the vessel, and then strain it out, and filter for use.

Difference of constitutions and circumstances may make some little variations in all these prescriptions necessary; but these are sufficient to form others by. They are generally given about a moderate wine glassful twice in a day; and will greatly restore the tone of the stomach and blood, after decays from intemperance, or acute diseases. In women also they much conduce to regulate the menstrual discharges, by giving a brisker motion to the blood.

Diuretics.

E. D. *Decoctum Althææ.*

The Marshmallow Decoction.

Take roots of marshmallows, moderately dried, six ounces; raisins stoned, two ounces; water, six pints; boil them to the consumptions of two pints; then strain off the liquor, which, after its feculence hath duly settled, pour off the clear for use.

It promotes urine, and cleanses away gravel; at the same time obviates acrimony, and eases pain.

Decoctum Diureticum.

A Diuretic Decoction.

Take roots of fennel and asparagus, of each two ounces; winter cherries N^o 12; golden-rod, two handfuls. Boil in water and white wine, (the latter being added towards the end) of each eight ounces. To twenty-two of the

strained liquor add of comp. horse-radish water two ounces; juice of parsley depurated, syrup of marshmallows, of each four ounces; millepedes (tied up in a rag, bruised alive, and washed out into it) N^o 300; *sal pruncl.* two ounces.

This is a powerful diuretic, and particularly of service, where the urinary passages are obstructed with gravel, or any gritty matter.

Decoctum Nephriticum.

A Decoction against the Stone.

Take roots of marshmallows, one ounce and a half: liquorice, half an ounce; golden-rod, two handfuls; pellitory of the wall and marshmallows, of each one handful; figs, N^o 4; juniper berries, seeds of Macedonian parsley, burdock, gromwel (to be added about the middle of the decoction), of each one drachm. Boil in posset-drink, turned with white wine, three pounds to twenty-eight ounces. Strain, and sweeten with syrup of marshmallows, four ounces.

This is more forcing than the former; and where gravel seems to be working through the passages, it ought to be drank in great plenty, or to the quantity of three pounds, or four pounds in a day.

Decoctum Juniperinum simplex.

Simple Decoction of Juniper.

Take juniper berries, four ounces; bruise and boil them in Canary, three pounds to two; then strain for use.

It is carminative, diuretic, and good against the colic and spleen. The dose is four ounces, two or three times a-day.

Decoctum Juniperi comp.

Compound Decoction of Juniper.

Take juniper berries well bruised,

ed, four ounces, boil them in water, three pounds to two pounds; then having put in the seeds of anise, caraways, sweet fennel, and coriander bruised, of each two drachms; and salt of wormwood, one drachm: cover all close, and set by till cold; then strain without squeezing, and put to it, fine sugar, two ounces; spirit of scurvy-grass, and spirit of sal ammoniac, of each four scruples.

This is said to dissipate flatulences, ease the colic, alleviate hypochondriacal affections, cleanse the reins, and promote the menses. It may be given four ounces, three or four times a day.

Decoctum Aperiens.

An Opening Decoction.

Take parsley and fennel roots, of each one ounce; barks of capers and tamarisk, of each half an ounce; herbs of ceterach, hart's tongue, agrimony, and liverwort, of each one handful. Boil these in water, and white wine added towards the last, of each one pound and a half, to eighteen ounces. When it is strained, put to it simple oxymel, and syrup of the five opening roots, of each two ounces; and mix for use.

This is equal to most of the detergents, and, in many cases preferable. Its dose is four ounces, two or three times a day.

Decoctum Scarleticum.

The Scarlet Decoction.

Take nitre in crystals, one ounce; white sugar, one ounce; cochineal, one scruple. Powder all together, and put them into boiling water, two pounds; continue it boiling long enough to scum it: then let it cool, and decant the clear for use.

This is the most pleasant way of giving the *sal prunel.* and makes a beautiful tincture; which is very conveniently divided into draughts of about two ounces and a half; which is the dose to be given once or twice in a day to promote urine, and cool its passages, especially in gonorrhœas; where it is of mighty service, as also to cool the blood after a debauch. If it be given in too large doses, it chills the stomach too much, and will thereby prove emetic, as Dr. Fuller has observed.

Emulso Asthmatica.

An Asthmatic Emulsion.

Take millepedes alive, N^o 120; bruise them in a marble mortar, pouring on them, by little and little, penny-royal water, six ounces; and in the liquor strongly expressed, dissolve gum ammoniac, three drachms; and strain it.

This is more diuretic than the plain *sal ammoniacum* before given; and therefore, where there is a corpulent habit, and a *saburra humorum*, this is a better medicine. The dose is a spoonful, in a draught of pectoral decoction, or any other convenient vehicle, two or three times in a day.

Emulso Diuretica.

A Diuretic Emulsion.

Take fresh gathered nettle roots, four ounces; boil them in spring-water, three pounds to two pounds and a half. To the strained liquor add the seeds of nettles, half an ounce; of parsley, one ounce; anise and mustard, of each two drachms. Infuse hot for four hours, and strain without squeezing; with twenty-eight ounces of it, and sweet almonds, melon, growvel, and white poppy seeds, of each half an ounce;

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white sugar as much as sufficient ; make an emulsion, *f. a.* to which add comp. horse-radish water, four ounces, and egg-shells finely levigated, half an ounce. Mix all together for use.

This is a good diuretic, both for forcing the current, and lubricating the passages at the same time. Its dose is four ounces, three or four times a day.

Infusio Diuretica.

A Diuretic Infusion.

Take sharp-pointed dock root, two ounces ; of dandelion, one ounce ; flowers of elder one handful ; tops of fir, garden scurvy-grass, brooklime, water-creffes, of each half a handful ; horse-radish root, two drachms ; mustard seed, one drachm. Infuse all in white wine, two pounds, warm and close stopped for four hours ; then strain for use.

This was a celebrated detergent and diuretic with Dr. Lower ; and, with some small variations, occurred frequently in his practice. The dose is a wine glassful, two or three times a day.

Succi ad Hydropem.

Juices against a Dropsy.

Take green plantane leaves, four handfuls ; liverwort and brooklime, of each two handfuls. After bruising them in a mortar, add, compound horse-radish water, half a pound ; and press it out hard through a flannel bag.

This was a common prescription with Dr. Willis ; and is much recommended for a good drainer of watery humors ; whereby persons are not only cured, but secured from dropsies. Half a pound of it may be drank every morning fasting for a month.

Alexipharmics.

Decoctum Sacrum.

The Holy or Sacred Decoction.

Take Virginia snake-root in powder, six drachms ; boil it in water, one pound to half a pound ; strain and reserve the liquor by itself ; boil the remainder in one pound more of fresh water half away as before, adding at the latter end cochineal, ten grains. Strain it, and having mixed the liquors together, dissolve therein Venice treacle, half an ounce ; honey, one ounce ; and then strain for use.

Dr. Fuller commends this much for an alexipharmic ; and makes a very just distinction between inflammatory and depressing fevers ; in the latter of which only such warm things are proper. In such fevers as the doctor calls depressing, that is, where the complexion is pale, and there is a low tickling pulse, and sometimes a clammy skin, this is a most useful medicine, and may be given two or three spoonfuls every hour, or seldom, as the state of the fever requires.

Decoctum Febrifugum.

A Febrifuge Decoction.

Take dried chamomile flowers, two ounces ; cochineal, one scruple ; boil them in water, three pounds to two. In the strained liquor dissolve salt of wormwood, two drachms.

In a viscid state of blood, and when the bark has been repeated often, without putting away intermitters for longer than about fourteen days, this sometimes will answer, if used plentifully ; and with the addition of volatiles, four ounces three or four times a day.

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Decoctum Corticis Balsamicum.

A Balsamic Decoction of the Bark.

Take Peruvian bark, two ounces, in powder; make three or four boilings in a sufficient quantity of water that all together may make one pound. To the last, which should boil but little, add storax and Benjamin of each one drachm and a half; and the roughest red wine, four ounces. Put all together, strained, for use.

The gums are better to be put into the several liquors mixed, and last of all the claret. This is fittest for hectic persons, and such as are troubled with night sweats, if the fever be not remarkable. The whole to be given in six draughts in two days, viz. morning, noon, and night, before the fever comes on. And if it comes at other times, give one draught every three hours between the paroxysms.

Decoctum Corticis cum Acidis.

A Decoction of the Bark with Acids.

Take powder of the bark, two ounces; spirit of sulphur by the bell, forty drops; boil in three pounds to twenty ounces, dividing the water, and making two or three boilings as before; and to the last put tormentil root, half an ounce; and galangal, two drachms.

This is the most effectual, where nothing else is in view but removing the fits, in constitutions otherwise well; and falls but very little short of the bark in substance. The tormentil prevents its going off by stool, which it is sometimes apt to do; and if this is not sufficient, add to each draught from five to eight drops of laudanum; or put twenty alone into the night-dose. This must be followed, giving about three ounces every three hours between the fits, till they

disappear, for grown persons; but for children, a third of the quantity will suffice.

Decoctum Corticis cum Chalybe.

A Decoction of the Bark with Steel.

Boil the bark, as in the last, with one ounce of steel filings, and double the quantity of the spirit of sulphur.

In a chlorosis, where the menstrual discharges have been defective, especially in constitutions languid, cold, and leucophlegmatic, this is the best preparation; to be given as the other; observing to desist, if the menses flow, till they are over.

Decoctum Corticis cum Helleboro.

A Decoction of the Bark with Hellebore.

Take the bark in powder, one ounce and a half; boiling as before to one pound; with black hellebore, one ounce, in the last decoction; and four ounces of white wine.

Divide and give this as the former, where a person naturally sanguine, from a sudden diminution of perspiration, or, as it is commonly called, catching cold, falls into an intermitten, joined with an obstruction of the menses: this will infallibly remove both the ails at once. But, to prevent the hellebore carrying it away by stool, a proper quantity of laudanum is to be added, as before directed.

Emulso Variolosa.

An Emulsion for the Small Pox.

Take sweet almonds blanched, seeds of melons, cucumber, white poppy, of each two drachms; double-refined sugar, half an ounce. When all are sufficiently beat in a

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marble

marble mortar, pour on, by degrees, jelly of hartshorn (made without juice of lemons) four ounces; alexiterial milk-water, twelve ounces; strain and press out; then add epidemic water, and that of cinnamon, of each one ounce; diaphoretic antimony newly and well made, two drachms. Mix for use.

This is recommended to be drank of frequently in the measles and small pox, according to the strength of the patient.

Emulsio Alexipharmica.

An Alexipharmic Emulsion.

Take sweet almonds blanched one ounce; cucumber seeds, and of white poppies, of each six drachms; barley-water, (in which has been boiled two ounces of scorzonera root) one pound and a half; alexiterial milk-water and plague-water, of each four ounces; syrup of lemons, three ounces. Make an emulsion, *f. a.*

This is a very pleasant drink in fevers, and assists to dilute and promote a diaphoresis, and cool the urine, especially where blisters are raised. It may be drank at pleasure.

Infusio Zedoarie.

An Infusion of Zedoary.

Take roots of zedoary, and aromatic reed, of each half an ounce; seeds of caraway, sweet fennel, of each two drachms; nutmeg, cardamoms, and saffron, of each one drachm; cloves, and grains of paradise, of each half a drachm; alexiterial milk-water, one pound; of mint-water half a pound; of cinnamon, four ounces; of gentian and wormwood comp. of each two ounces; macerate close, and moderately warm, for twelve hours:

then strain, and add spirit of lavender, comp. and spirit of sal ammoniac, of each two drachms; and mix for use.

This is recommended in the gout and rheumatic pains attended with a fever; to sip a little of often hot; for it helps a diaphoresis, and keeps the gouty matter in the extreme parts.

Infusio Alexipharmica.

An Alexipharmic Infusion.

Take scordium dried and pickled, two drachms; Venice treacle, three drachms; plague-water, four ounces; milk water alex. twelve ounces: a whole lemon sliced. Steep all together close for three or four hours; then strain and sweeten, if desired, for use.

This is much more efficacious than any alexipharmic julep; and divers of this kind may be contrived, where the patient will not, or cannot submit to more forms at once, as the different symptoms require them to be varied. This drank three or four spoonfuls at a time, and repeated every hour or two, with proper warmth and diluters, cannot fail of raising a sweat, and being of service in most fevers.

Cathartics.

Decoctum Polychrestum.

A Decoction of many Virtues.

Take roots of polypody of the oak, three ounces; succory, two ounces; monk's rhubarb, six ounces; sena, two ounces; sweet fennel-seed, liquorice, of each one ounce; raisins of the sun stoned, four ounces; boil in a sufficient quantity of spring-water to strain to two pounds and a half. To the liquor put juice of sea scurvy-grass, eight ounces; manna, two ounces;

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ounces; and clarify with the whites of eggs.

This is an usual spring purge with small variations, as circumstances may differ. Its dose is from two ounces to five ounces. There must not be much more water put in, than is required in the strained liquor; because the ingredients need but just boil.

Infusio Cathartica.

A Purging Infusion.

Take senna, one ounce, white tartar powdered, half an ounce; elder-flower water and white wine, of each half a pound; infuse warm and close for twelve hours; take twelve ounces of the liquor clear strained; add to it syrup of succory with rhubarb, four ounces. Mix for use.

The dose of this to grown persons is ordered from three ounces to five ounces; and proportioned accordingly to children. This makes a good purge enough for the first passages.

Infusio Rhabarbari.

An Infusion of Rhubarb.

Take rhubarb thin sliced, two drachms; yellow mirobolans, one drachm; salt of wormwood, sixteen grains; common and cinnamon-water, of each two ounces; infuse, close and warm all night; strain off, and add syrup of roses, half an ounce, or six drachms; drink the whole the next morning at one dose.

This is good in an over-abundance of bile, and when persons puke or belch bitter, or sour in a morning, and are subject to diarrhœas.

Infusio cathartica communis.

The common Purging Infusion.

Take senna, three drachms; rhu-

barb, half a drachm; coriander seed, liquorice, of each one scruple; salt of tartar, ten grains; infuse in a sufficient quantity of water, to strain off, three ounces; to which put *elixir salutis*, two drachms; syrup of damask roses, half an ounce; take it at one dose.

Altera. Another.

Take senna and rhubarb, of each two drachms; liquorice and coriander seeds, of each half a drachm; Epsom salt, two drachms; infuse in water enough for three ounces; and add syrup of buckthorn, three drachms. Mix for one dose.

This is stronger than the former, and will infallibly operate with the most robust constitutions. In the same manner purging draughts may be prepared by infusion, with such variations as different constitutions and circumstances require, of any strength and quantity.

Coolers and Narcotics.

Decoctum Pacificum.

The Pacific Decoction.

Take salt of tartar made with nitre, three ounces; flowers of poppies, juniper berries, and roots of black hellebore, of each eight ounces; lime water, thirteen pounds. Boil, with a gentle fire, for twenty-four hours, and when cool, strain through a thick flannel.

This may be used to many good purposes, for it greatly breaks viscid and sily humors, and deterges those passages where they are most apt to be obstructed; and it discharges them both by urine and transpiration; so that it is a good medicine in scorbutic rheumatisms, and will procure ease where the pains are violent. And to this last purpose some add two or three
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drachms of opium; which make yet a greater fudorific, of service in the tortures of the gout. The dose is to be proportioned according to the strength and exigency of the patient; and to be given chiefly every night going to bed.

Decoctum refrigerans.

A Cooling Decoction.

Take spring-water, twenty-six ounces; make it boil, and then put in juice of lemons and fine sugar, of each two ounces; cochineal, one scruple; let it continue boiling till the scum be taken off; and put to it of damask rose-water, four ounces.

This is a most pleasant drink in parching fevers, and may be sipped of at pleasure. It greatly cools the stomach, and helps to wash off by urine.

Decoctum refrigerans alterum.

Another Cooling Decoction.

Take sorrel roots and raisins of the sun cut small, of each two ounces; liquorice and pearl-barley, of each half an ounce. Boil in spring-water from three pounds to two; and sweeten with syrup of lemons, two ounces.

This has much the same qualities as the former, but is not quite so grateful either to sight or taste. It may be drank at pleasure.

Decoctum Scorzonerae.

A Decoction of Scorzonera.

Take pearl-barley, half an ounce; roots of scorzonera, two ounces; roots of sorrel, one ounce; leaves of wood sorrel, one handful; parings of pippings, N^o 2. Boil in water, three pounds to twenty-eight ounces; strain and sweeten with syrup of lemons and raspberries, of each two ounces; and mix for use.

This may be drank at discretion in fevers as a diluter; and some imagine the scorzonera gives it an alexipharmic quality and makes it promote sweat.

Emulso Pacifica.

A Pacific Emulsion.

Take white poppy seeds, two ounces; sweet almonds blanched, half an ounce; red poppy-water, one pound and a half. Make an emulsion, *f. a.* which sweeten with diacodium, three ounces.

It greatly soothes a delirium, and steals the patient into sleep much better than the warm opiates. It may be given three or four ounces at a time, till it answers the end. It may be of great service in the small-pox, and will keep the person much less sensible of soreness, and more easy.

Succus Attemperans.

The Cooling Juice.

Take as much dandelion as you please; put it into a glazed pipkin with a cover, which stop close with paste, set it in an oven after the bread is drawn; and let it stand six hours, then pour the liquor through a hair sieve, without squeezing, for use.

Dr. Fuller approves this way of obtaining the juices from herbs because they agree better with the stomach than those which are expressed raw. This simple medicine, he says, dilutes the blood and humors, corrects their acrid salt; and is a principal thing in a hot scurvy, and cutaneous affections. He has known where it has done good, even in a *Lepra Græcorum*, so far as to keep it from itching, heating, and spreading, and make it tolerable, though it could not cure it: four ounces of it are to be drank thrice a day.

S E C T. III.

Of Juleps, Draughts, and Mixtures.

THE first of these forms is so much altered in the present practice, that the latest Dispensatory writers cannot be of any service to us herein. Under this title used to be included a great deal made by infusion, and received from the expressed juices of herbs, fruits, &c. and Dr. Fuller, the latest of all, has scarce a julep in his whole book, which would not be thought a very odd prescription now in any apothecary's shop; for he often adds powders and chemical oils, which deform this kind of medicine; and are much more conveniently exhibited in boles, powders, and electaries. The present practice is not only extraordinary in the neatness and elegance of extemporaneous medicines, by which it has rejected out of juleps all but transparent liquors, unless in pearl juleps; but also regards them only as diluters; and therefore orders what the main dependence is upon, in some other form. And even the quantities herein are so exactly kept up to, from eight ounces to about ten ounces for the largest juleps, that the shops are only furnished with phials of those sizes to contain them. The same alteration likewise is made in draughts; they being now little else than a less proportion of the same things as are ordered in juleps, for one dose, to wash down or dilute a bole, or a medicine in a more solid form. In no intention, therefore, are they trusted to, unless as narcotics and cathartics;

many of those medicines being conveniently enough exhibited in a draught for one dose: and a potion seems to differ from this no other-wise than as it is a more medicinal term; and therefore generally applied to cathartics. A mixture is properly a julep with solid ingredients dissolved in it; or when oils are added to draughts without incorporation; (for by incorporation they become linctuses or emulsions.) The former is out of practice, being deemed an unsightly and slovenly way of composition; and the latter never occurs but amongst emollients; and therefore of these we shall meet with but few. As the present practice then is to be almost our only guide in these forms, we shall give a few examples of each, under all those intentions they are best fitted for, in the method which was taken in the distribution of the medicinal simples in the second part. As these likewise were used to be sweetened with as much as is sufficient, of some appropriate syrup, they are now generally dulcified only with plain sugar: but as this alteration can be of no great importance, it may be eligible to retain, in some measure at least, the old way; because a patient's expectation, which is no trifling regard, is much more raised with a well-coloured cordial, than by what is clear: for they are apt to slight the latter as no better than simple waters; which they have no opinion of.

Cephalics.

Cephalics and Cardiacs.

(1.) Take black-cherry-water and baum-water, of each three ounces; piony-water compound, four ounces; syrup of cloves, six drachms. Make them into a julep.

Or, (2.) Take rosemary and black-cherry-water, of each four ounces; compound piony-water, two ounces; spirit of lavender, two drachms; syrup of cloves, six drachms. Make them into a julep.

Or, (3.) Take baum and black-cherry-water, of each three ounces and a half; *aqua mirabilis*, two ounces; spirit of lavender, half an ounce; of the royal tincture, twelve drops; fine sugar, half an ounce. Make them into a julep.

Or, (4.) Take black-cherry-water, six ounces; Dr. Stephen's-water, two ounces; *aqua Mariæ*, one ounce; confectio alkermes, two drachms; sugar, half an ounce. Make them into a julep.

Or, (5.) Take black-cherry-water and white wine, of each three ounces and a half; *aqua cælestis*, two ounces and a half; syrup of piony one ounce. Mix them into a julep.

Or, (6.) Take white wine, eight ounces; *aqua cælestis* and *aqua Mariæ*, of each one ounce; syrup of piony, half an ounce; confectio of alkermes, three drachms. Make them into a julep.

Or, (7.) Take white wine and damask-rose-water, of each three ounces and a half; piony-water comp. two ounces; spirit of lavender, three drachms; castor, tied up in a piece of scarlet or white silk, one scruple; musk, three grains; which put into the phial, and make into a julep.

And with little variation, as they are desired to be stronger or smaller, to be fitted for nervous distempers, or to be purely cordial, and as the sweets agree or not, may a thousand more be contrived; but all of them of no great moment, farther than to dilute and wash down other dry forms: to be taken five or six spoonfuls at a time. In some slight cases indeed they may be trusted to; with the help of some drops of sal volatile oleosum, which, coloured with spirit of lavender, is called the cephalic tincture or spirit, to be used in each dose, which ought to be repeated every three, four, or six hours, as occasion requires; one drachm, or thereabouts in any one of these juleps, of levigated pearl, and sweetened with fine loaf-sugar, instead of any syrup, makes it a pearl cordial.

Draughts under the same class may be ordered of about a third part of the quantity of a julep, and suited accordingly.

Carminatives.

(1.) Take the last runnings of *aqua mirabilis* and chamomile-water, of each three ounces and a half; spirit of juniper, two ounces; syrup of cloves, six drachms. Make them into a julep.

Or, (2.) Take the last runnings of Dr. Stephens's water, four ounces; dill-water, and compound angelica-water, of each two ounces and a half: syrup of clove-July-flowers, half an ounce; confectio of alkermes two drachms. Make them into a julep.

Or, (3.) Take chamomile flower-water, six ounces; spirit of caraway, an ounce; *aqua mirabilis*, two ounces;

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ces; syrup of cloves an ounce. Make them into a julep.

Or, (4.) Take the last runnings of compound angelica-water and fennel-water, of each four ounces; *aqua cœlestis* two ounces; spirit of lavender, three drachms; leaf-gold, two leaves; *tinctura regalis*, six drops; syrup of clove-july-flowers, six drachms. Make them into a julep.

Or, (5.) Take elder flower, and chamomile-water, of each three ounces and a half; *aqua mirabilis*, two ounces; spirit of angelica an ounce; fine loaf-sugar, half an ounce; and confectio of alkermes, two drachms. Make them into a julep.

In colic pains some drops of *laudanum liquidum*, might be added to any of these, and would make them more sure in abating them, and procuring present ease. For children, who often want them, they must be made with a less quantity of the compound waters, and given in proportionate doses. Draughts also are to be made for the same intention with about a third of the quantity.

Hysterics.

(1.) Take penny-royal water, four ounces; black-cherry and bryony-water compound, of each three ounces; syrup of stinking orrache, an ounce; tincture of castor, a drachm. Mix them into a julep.

Or, (2.) Take rue, penny-royal, and compound bryony-water, of each three ounces; syrup of compound piony, an ounce; castor tied up in a nodule of silk, a scruple; asa foetida five grains. Mix them into a julep.

Or, (3.) Take rue and black-cherry-water, of each three ounces;

compound bryony-water two ounces; spirit of castor, two drachms; spirit of sal ammoniac, a drachm; sugar, a sufficient quantity. Make them into a julep, in which put asa foetida ten grains, in a nodule of red silk.

Or, (4.) Take chamomile and rue-water, of each three ounces; compound piony water, two ounces; spirit of sal ammoniac, a drachm; pearl, prepared, a drachm; fine loaf sugar, half an ounce. Make them into a julep.

Or, (5.) Take camphor, two drachms; set it on fire, and immediately quench it in a pound of spring-water; repeat the same till the camphor is consumed, and then sweeten the water for a julep.

Or, (6.) Take black-cherry and penny-royal-water, of each four ounces; compound bryony-water, two ounces; quench two drachms of camphor in them till consumed, and sweeten with sugar sufficient for a julep.

With the same ingredients, and such variations as present circumstances indicate, may be compounded many more; but those with the camphor are much the most efficacious, and will frequently be of service, without any other help.

Strengtheners.

(1.) Take mint, and small cinnamon-water, of each four ounces; spirit of cinnamon, two ounces; syrup of quinces, an ounce. Make them into a julep.

Or, (2.) Take barley-cinnamon-water, six ounces; spirit of mint, and of clary, of each an ounce and a half; syrup of mint, an ounce. Make them into a julep.

Or, (3.) Take red-rose-water, barley-cinnamon-water, of each four

four ounces ; spirit of cinnamon, two ounces ; pearl prepared a drachm ; fine loaf-sugar, six drachms. Make them into a julep, to be intitled, *The pearl cordial*.

There are many other waters in the shops, called for in the same intention, but we have proved them unfit to answer any such ends ; and these are sufficient, so far as can be expected from this form. Where cinnamon-waters are not in readiness, and the oil of it can be had, these may be made by dropping a sufficient quantity, which is a very little, upon sugar, and dissolving it in any water ; for it is the restringent warmth of that which fits it for this intention.

Draughts may be made of a third of either of these : but as they are seldom ordered to this purpose but with some mixtures of opiates, we shall meet with them under that class.

Balsamics.

(1.) Take barley-cinnamon and magisterial snail-water, of each four ounces ; rose-water, two ounces ; syrup of balsam, six drachms. Make them into a julep.

Or, (2.) Take rose-water, four ounces ; magisterial snail-water, six ounces ; fine loaf-sugar, six drachms ; pearl prepared a drachm ; make them into a pearl cordial.

Or, (3.) Take new milk, four ounces ; boil in it balsam of Tolu, half a drachm ; flowers of Benjamin, five grains ; after straining, put thereto magisterial snail-water, four ounces ; rose-water, two ounces ; pearl, a drachm ; fine loaf-sugar, half an ounce ; and make them into a julep, which may be entitled, *The pearl cordial*.

There is likewise very little of

this class suitable for this form, or of the subdivisions under it ; the following therefore may pass for vulnerary or detergent.

(4.) Take parsley-water, elder flower-water, and magisterial worm-water, of each three ounces ; spirit of juniper, half an ounce ; syrup of the five roots, six drachms. Make them into a julep.

Or, (5.) Take elder-flower-water, six ounces ; magisterial worm-water, four ounces ; syrup of the five roots, an ounce. Make them into a julep.

Or, (6.) Take Castile soap, sliced thin, a scruple ; boil it in milk, four ounces, and as much elder-flower-water ; when dissolved and strained, add of magisterial worm-water, two ounces ; spirit of juniper, half an ounce ; pearl, a drachm ; fine sugar, six drachms. Mix, and intitle it, *The pearl julep*.

Draughts may be made of a third of any of these, and where any other form is more irksome to the patient, the latter, with somewhat a larger proportion of soap, may be trusted to in the jaundice, and any kind of cachexy, if repeated often, and continued long enough.

Diuretics.

(1.) Take parsley-water, white wine, and compound horse-radish-water, of each three ounces ; syrup of marshmallows, half an ounce ; make them into a julep.

Or, (2.) Take parsley-water, and compound horse-radish-water, of each five ounces ; syrup of marshmallows, six drachms. Make them into a julep.

Or, (3.) Take white wine, six ounces ; compound horse-radish-water, four ounces ; syrup of marshmallows, an ounce. Make them into a julep.

Or,

Or, (4.) Take parsley-water, four ounces ; white wine, six ounces ; oil of tartar *per deliquium*, two drachms ; syrup of marshmallows, an ounce. Make them into a julep.

Or, (5.) Take white wine, eight ounces ; compound horse-radish-water, two ounces ; spirit of nitre dulcified, two drachms ; syrup of marshmallows, an ounce. Make them into a julep.

Of either of these, a third part may be described in a draught ; but because some things under this intention are of such efficacy as to deserve their exact doses to be assigned, it may be convenient to give some examples of them in draughts and mixtures for one dose.

(1.) Take white wine, two ounces ; spirit of juniper, three drachms ; oil of tartar *per deliquium*, a drachm ; syrup of marshmallows, two drachms. Make them into a draught.

Or, (2.) Take small cinnamon-water, vinegar of squills, and syrup of marshmallows, of each an ounce : make them into a draught.

Or, (3.) Take white wine, and vinegar of squills, of each an ounce ; spirit of cinnamon, two drachms ; syrup of white poppies, half an ounce. Make them into a draught.

These two latter are greatly recommended, by the best authorities, in the present practice, and are much depended upon in dropsies, and the worst of cachexies, especially if attended with an asthma. The cinnamon-water, though of itself of a contrary intention, yet here it contributes to this, by guarding the stomach and first passages against such sollicitations from the squills, as will make the medicine be rejected by vomit or

stool, and so serves only as a means to convey it into the blood, where it acts as a powerful alterative. The diacodium also helps to the same end, as opiates may, in many instances, change cathartics into alteratives, by obtunding or rendering unheeded their irritations in the first passages : and giving them an opportunity of exertion upon the blood and juices in more remote parts. But as diuretics are also sometimes guarded and assisted by such things as relax and smooth the passages, the following mixtures are proper to such a purpose.

(1.) Take compound horse-radish-water, and white wine, of each an ounce ; oil of sweet almonds, and syrup of marshmallows, of each half an ounce. Mix for one dose.

Or, (2.) Take white wine, two ounces ; oil of tartar *per deliquium*, two drachms ; syrup of white poppies, and oil of sweet almonds, of each three drachms. Mix for one dose.

Or, (3.) Take oil of walnuts, and syrup of marshmallows, of each an ounce ; oil of tartar *per deliquium*, two drachms ; white wine, half an ounce. Mix for one dose.

Or, (4.) Take white wine, an ounce and half ; spirit of nitre dulcified, forty drops ; oil of sweet almonds, and syrup of white poppies, of each half an ounce. Mix for one dose.

These latter are chiefly of use where violent pains are occasioned by the stone and gravel ; and, at the same time, that they help forwards what is obstructed in the urinary passages, they also lubricate and widen them, whereby that is carried through, which forcing

forcing medicines only might wedge in the harder, and lay as a foundation for insuperable obstructions. These are to be repeated as the urgency of symptoms indicates.

Diaphoretics.

(1.) Take treacle and plague-water, of each an ounce and half; alexiterial milk-water, and rue-water, of each three ounces; syrup of red poppies, half an ounce. Make them into a julep.

Or, (2.) Take treacle-water, three ounces; alexiterial milk-water, six ounces; syrup of red poppies, six drachms. Make them into a julep.

Or, (3.) Take compound scordium-water, three ounces; plague-water, two ounces; alexiterial milk-water, four ounces; syrup of red poppies, half an ounce. Make them into a julep.

Or, (4.) Take treacle and compound scordium-water, of each two ounces; milk-water, five ounces; tincture of saffron, two drachms; spirit of sal ammoniac, a drachm; fine loaf-sugar, two drachms. Make them into a julep.

Or, (5.) Take new Rhenish wine, six ounces; plague-water, and treacle-water, of each an ounce and half; syrup of poppies, six drachms. Make them into a julep.

Or, (6.) Take alexiterial milk-water, six ounces; plague-water, three ounces; distilled vinegar, half an ounce; dulcified spirit of nitre, fifty drops; syrup of red poppies, six drachms. Make them into a julep.

Or, (7.) Take *aqua protheriacalis*, alexiterial milk-water, and plague-water, of each three ounces; tincture of saffron, half an ounce;

syrup of red poppies, six drachms. Make them into a julep.

Or, (8.) Take plague-water, black-cherry-water, and alexiterial milk-water, of each three ounces; pearl prepared, a drachm and a half; fine loaf-sugar, half an ounce. Mix, and intitle it, *The pearl julep*.

Emetics.

The name of julep is a stranger under this title, and therefore we have nothing more here besides potions or mixtures. As,

(1.) Take oxymel of squills, two ounces; baum-water, an ounce; oil of almonds, half an ounce. Mix for one dose.

Or, (2.) Take vinegar of squills, an ounce and half; oil of almonds, an ounce. Mix for one dose. Or, for stronger persons,

(3.) Take *vinum benedictum*, an ounce; milk-water, two ounces. Mix for one dose.

Or, (4.) Take powder of ipecacuanha, half a drachm; syrup of violets, an ounce; milk-water, two ounces. Mix for one dose.

Or, (5.) Take emetic tartar, six grains; oxymel of squills, an ounce; milk-water, two drachms. Mix for one dose.

Or, (6.) Take of the juice of the herb asarabaca, six drachms, or an ounce; oxymel of squills, half an ounce; carduus-water, two ounces. Mix for a draught.

This last is prescribed chiefly to hypocondriacal and maniacal patients, and is a very strong emetic; such people requiring much larger doses than others.

(7.) Take *mel belleboratum*, an ounce; vinegar of squills, half an ounce; milk-water, an ounce. Mix for one dose. Or, for children,

(8.) Take

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(8.) Take oxymel of squills, half an ounce ; milk-water, an ounce. Mix for one dose.

Or, (9.) Take vinegar of squills, two drachms ; syrup of peach blossom, three drachms. Mix for one dose.

Or, (10.) Take syrup of peach-blossoms, three drachms ; emetic salt of vitriol, eight grains ; milk-water, half an ounce. Mix for one dose.

In all these the strength and circumstances of the patient, and the distemper, are to be the main guide, and therefore there can be no set forms determined for universal use : these take in what the present practice relies on ; but the milder are most used.

Milder Cathartics.

(1.) Take syrup of damask roses, an ounce and half ; *aqua mirabilis*, two drachms. Mix for one dose.

Or, (2.) Take syrup of rhubarb, two ounces ; chamomile-water, an ounce and half. Mix for one dose.

Or, (3.) Take syrup of rhubarb, an ounce ; *elixir salutis*, half an ounce ; chamomile-water, an ounce and half. Mix for one dose.

Cathartics rougher.

(1.) Take syrup of buckthorn, an ounce and half ; chamomile-water an ounce, and half ; *aqua mirabilis*, two drachms. Mix for one dose.

Or, (2.) Take syrup of damask roses, an ounce and half ; *elixir salutis*, half an ounce ; chamomile-water, an ounce. Mix for one dose.

But because syrups, in such large quantities, are loathsome to many in taking, the general practice is to prescribe extemporaneous draughts by infusion, many of

which may be made from such a portion of some cathartic, before given under that form, as is allotted for a dose ; but because this is not so much used, we shall here subjoin a few examples of potions thus made.

(1.) Take senna, three drachms ; liquorice-root, half a drachm ; coriander-seeds, and salt of tartar, of each ten grains ; infuse in a sufficient quantity of hot water, to strain three ounces ; to which add *elixir salutis*, two drachms, and syrup of damask roses, half an ounce. Make a potion for one dose.

Or, (2.) Take senna, two drachms ; rhubarb-root, a drachm ; liquorice, half a drachm ; salt of tartar, ten grains ; infuse in enough boiling water, to strain three ounces ; to it put syrup of buckthorn, three drachms ; *aqua mirabilis*, two drachms : make them into a potion for one dose.

Or, (3.) Take senna, three drachms ; rhubarb, a drachm ; liquorice, two scruples ; salt of tartar, ten grains : infuse in enough boiling-water, to strain three ounces ; and add syrup of damask roses, half an ounce. Make them into a potion.

Or, (4.) Take senna, half an ounce ; liquorice, a drachm ; salt of Epsom-water, two drachms : infuse in enough boiling-water, to strain three ounces ; and add syrup of buckthorn, half an ounce, for one potion.

The doses here are for grown persons, and for children they may be proportionably varied to their ages ; as, likewise, be made stronger or weaker, according to the strength and circumstances of the patient : though indeed the stronger cathartics, such as some constitutions and disorders require, come not conveniently into this form, as many re-

finous substances and preparations in the chemical pharmacy; the reader may, therefore, expect to meet with them amongst the boles and powders of this class.

Narcotics.

Reasons have already been given, why these ought not to be trusted in any forms but such as are most proper for one dose; and therefore juleps are hence excluded, and nothing else but draughts are proper under this division: a few examples take as follow.

(1.) Take plague-water and milk-water, of each an ounce and half; syrup of white poppies, six drachms. Make them into a draught.

Or, (2.) Take plague-water and barley-cinnamon-water, of each an ounce and half; liquid laudanum, fifteen drops; syrup of red poppies, three drachms: mix.

Or, (3.) Take Dr. Stephens's water, an ounce; barley-cinnamon-water, two ounces; solid London laudanum, a grain and a half; syrup of cloves, three drachms: mix.

Or, (4.) Take *aqua mirabilis*, an ounce; chamomile-water, two ounces; syrup of white poppies, six drachms: mix for one draught.

When the intention is only to procure sleep, or to stop defluxions of rheum, which all opiates more or less do, it is no great matter what is the vehicle, provided the opiate be well adjusted in its dose; but in fevers, colics, and other distempers, which have some other indications besides that of giving sleep, the vehicle must be chose out of such as are most proper to the intention pointed at, whether alexipharmic, carminative, restraining, or any other. There is a

hazard in ascertaining the dose of liquid laudanum from the number of drops, which few are apprized of; and that is, the shape of the bottle from whence it is dropt will make the quantity more or less, because the drops will form larger or smaller, according to the fashion of the phial; it may be demonstrated from experiment, by weighing such a number of drops from phials of different forms and magnitudes; for this reason many physicians now choose the solid laudanum, which may be ascertained by weight; and if it be well dissolved, its small quantity is hardly discernible, so as to make a draught thick or foul. But although opiates are best prescribed in single doses, to grown people, yet to children, where they are necessary, because the quantity of one dose is so small as not easily to be computed by weight or measure, the best way is to give them in mixtures for many doses, and directing a spoonful, at a time, to be repeated, at several distances, till the end aimed at is obtained: in the gripes, therefore, and ungovernable loosenesses, the following may be of use.

(1.) Take chamomile-water, four ounces; *aqua mirabilis*, two drachms; syrup of white poppies, an ounce: for a mixture, to be given at discretion.

Or, (2.) Take mint-water and fennel-water, of each two ounces; syrup of clove-July-flowers, an ounce; liquid laudanum, twenty drops: mix, and give a spoonful every half hour, till it procures ease.

Coolers.

Very little is prescribed in the shops under this intention, because the kitchen so much better supplies all

all of this kind, and furnishes the common diluters, of which sage-tea, lemonade with a little wine, and wine and water, are much the best; however, where other forms are little used, juleps, after the following examples, may be prescribed.

(1.) Take of simple alexiterial water, eight ounces; treacle-water, two ounces; syrup of lemons, or of Seville oranges, an ounce. Make them into a julep.

Or, (2.) Take of simple alexiterial water, eight ounces; *aqua prothieriacalis*, two ounces; syrup of raspberries, an ounce. Make them into a julep.

Or, (3.) Take new Rhenish wine, half a pound; syrup of lemons, an ounce. Make them into a julep.

Or, (4.) Take Rhenish wine, and damask-rose-water, of each four ounces; spirituous alexiterial water, two ounces; syrup of Seville oranges, an ounce. Make them into a julep.

L. *Julepum è Camphora.*
Julep of Camphor.

Take of camphor one dram; the finest sugar, half an ounce; boiling water, one pint; grind the camphor first with a little rectified spirit of wine, till it becomes soft, and then with the sugar till it be perfectly mixed; afterwards add the water by degrees, and filter in a close vessel.

If the composition is rubbed with twice its weight of gum arabic, it mixes well with the water.

L. *Julepum è Creta.*
Julep of Chalk.

Take of chalk perfectly purified, an ounce; the finest sugar, six drachms; gum arabic, two drachms; water, two pints; mix them.

The gum arabic is intended to render the water viscid, and by that means prevent the chalk from subsiding so quickly: the quantity prescribed is much too small to answer the end, and much more must be added to suspend the chalk longer than water alone. The Edinburgh college hath been less wanting in this respect.

E. *Potio Cretacea.*

The Chalky Potion.

Take of prepared chalk, and powdered gum arabic, of each an ounce; of pure sugar, half an ounce; pure water, two pints; and spirituous nutmeg-water, two ounces: mix.

L. *Julepum è Moscho.*
Musk Julep.

Take of damask rose-water, six ounces; musk, twelve grains; the finest sugar, one dram; pound the sugar with the musk, and then gradually add the rose-water.

The musk would be better dissolved and suspended in this julep, if it was first rubbed well with two or three drams of the mucilage of gum arabic, before the addition of any thing else to it; volatile spirits are usefully added also for dividing musk, for which account from a dram to two drams of the volatile aromatic spirit may be added to the above julep.

S E C T. IV.

Of Linctuses, Lambatives, &c.

TH E ancient practice greatly abounded with prescriptions in these forms, which the prescriber, at pleasure, entitles either Linctuses, Lambatives, Lohochs, or Syrups; but they are much neglected by the present. The sweetness and adhesion of these medicines make them not only tiresome in taking, but clogging, and injurious to some stomachs; so that while by them it is endeavoured to deterge the lungs of phlegm, the digestion is so much hindered, that a greater supply is made, which renders such efforts in vain, if not worse for the patient. In short, there are very few of these of any other service than to promote and ease those coughs in old age, which are necessary to keep open the breast, and break away such infarctions as are occasioned by a diminution of transpiration, (*i. e.* what is commonly called taking of cold), or weakened concoction, that give rise to pleurifies, asthmas, coughs, and the like. It is not unfrequent to meet with many under this denomination, intended to restringe and agglutinate; but they are justly rejected, because sugars are opposite to all such designs, as has been already sufficiently urged in many places. Where oil is to be mixed in these forms, it is first to be done very intimately, with a little sugar, or what powders else are ordered; and then the syrups to be dropt in gradually at first, till there is an

entire incorporation, tho' oil and syrup may be mixed without; but it is with a great deal of trouble.

E'mollients.

(1.) Take black pectoral troches, finely powdered, two drachms; syrup of liquorice and hyssop, of each one ounce; oil of almonds, half an ounce. Mix, *f. a.*

(2.) Take white pectoral lozenges, three drachms; syrup of marshmallows, and oil of sweet almonds, of each one ounce and a half. Mix, *f. a.*

(3.) Take powder of haly, fresh made, half an ounce; diacodium and syrup of liquorice, of each an ounce and a half; oil of sweet almonds, one ounce: mix, *f. a.*

(4.) Take spermaceti, two drachms; white sugar, half an ounce; syrup of balsam, three ounces: mix, *f. a.*

(5.) Take powder of marshmallow-roots, three drachms; flower of sulphur, one drachm; gum arabic, half a drachm; white of egg beat up, one ounce; syrup of marshmallows, as much as is sufficient: mix, *f. a.*

(6.) Take seeds of fleabane and quinces, of each one drachm; make them into a mucilage with as much as is sufficient of rose-water, to four ounces; which being strained, add one white of an egg beaten, and white sugar powdered, five drachms.

This is fitter for a fore mouth than any other medicinal purpose, and

and is very cooling and pleasant. It ought to be retained as long as possible, without swallowing.

(7.) Take white sugar-candy, six drachms; oil of sweet almonds, and syrup of marshmallows, of each an ounce and a half: mix, *f. a.*

(8.) Take syrup of red poppies and linseed oil, of each two ounces; oil of aniseed, two drops; sugar, two drachms: mix, *f. a.*

(9.) Take conserve of hips, half an ounce; diacodium and oil of sweet almonds, of each an ounce and a half: mix, *f. a.*

(10.) Take white lozenges and spermaceti, of each one drachm and half; oil of sweet almonds, and syrup of balsam, of each one ounce and a half: mix, *f. a.*

Take powder of liquorice, three drachms; syrup of maiden-hair, and oil of sweet almonds, of each one ounce: mix, *f. a.*

Many more examples might be given; but these are sufficient. They are to be taken by a spoonful at a time, and repeated two, three, or four times a day, according to the urgency of symptoms. The oily lambatives are mostly ordered in asthmas and pleurisies, and to heal excoriations and abscesses, and soften and relax the crispy tone of the fibres, that straitens the capacities of the vessels. Those which promote expectoration, are of the following kind.

Detergent.

(1.) Take syrup of hyssop, two ounces and a half; oil of sweet almonds, one ounce; oil of aniseeds, two drops; tincture of myrrh, one drachm; powder of orris-root, four scruples; flowers of Benjamin, half a scruple; tobacco, four grains: mix, *f. a.*

(2.) Take syrup of ground-ivy, and hore-hound, of each one ounce and a half; oxymel simple, one ounce; powder of arum compound, of orris and gum ammoniac (dissolved in cinnamon-water, and strained), of each one drachm; *elixir proprietatis*, prepared with oil of sulphur by the bell, half a drachm; flowers of Benjamin, twelve grains: mix, *f. a.*

(3.) Take balsam of Tolu, two drachms; rub it very fine and smooth with the yolk of an egg; then put to it syrup of liquorice, one ounce and a half; and balsam of Peru, four drops: mix, *f. a.*

(4.) Take syrup of vinegar and liquorice, of each one ounce; gum ammoniac dissolved in white-wine, and strained, one drachm; powder of arum compound, and myrrh, of each half a drachm: mix, *f. a.*

This latter is somewhat untoothsome, from the bitterness of the myrrh; but where the vessels are greatly stuffed, it will do good service; as also in nervous asthmas, which give not way to ordinary means.

(5.) Take syrup of the five roots, two ounces; candied garlic, half an ounce; gum ammoniacum dissolved in vinegar, and strained, half a drachm; oil of linseed, one ounce: mix, *f. a.*

(6.) Take fine Venice soap sliced thin, half an ounce; oil of sweet almonds, and syrup of violets, of each an ounce: mix, *f. a.*

This is of an unseemly colour, because the soap changes the syrup green; but it powerfully expectorates, and is also a good detergent in foulnesses of other viscera besides the lungs.

(7.) Take spermaceti, half an ounce; white sugar-candy, one ounce; syrup of the balsam of

Tolu, one ounce and a half: mix them smooth. *f. a.*

This stands greatly recommended for hoarseness; and if one ounce of linseed-oil was added, it would mend it for that purpose.

(8.) Take linseed-oil newly drawn, white sugar-candy finely powdered, and syrup of ground-ivy, of each one ounce; powder of orris, one drachm; flower of sulphur, half a drachm; tincture of gum ammoniac, twelve drops; oil of aniseeds, four drops; salt of hartshorn, six grains; mix, *f. a.*

(9.) Take balsam capivi, two drachms; rub it smooth with the

yolk of an egg; then add fine sugar-candy in powder, three drachms; linseed-oil, one ounce and a half; and syrup of marsh-mallows, two ounces and a half: mix, *f. a.*

(10.) Take oxymel of squills, syrup of saffron and linseed-oil, of each one ounce; fine sugar-candy in powder, half an ounce: mix, *f. a.*

(11.) Take balsam of Lucatellus, half an ounce; of Gilcad, one drachm and a half. Mix them well with the yolk of an egg, then add syrup of red poppies, two ounces; oil of sweet almonds, one ounce; spirit of sulphur by the bell, twelve drops: mix, *f. a.*

S E C T. V.

Of Electaries.

IN T O this form, there are some things reducible almost for all intentions: and as they convey most medicinal simples in substance, they are generally to be depended on in cases of importance and difficulty. The only things not convenient to be managed hereby, are such as are extremely bitter and nauseous, or of such efficacy, that their doses cannot be exactly enough adjusted: these being assigned generally by guess, in the quantity of a nutmeg, or the like; and for this reason will be found, under this division, none of the bitter stomachics, nor of the strong cathartics, or narcotics: the first, because they cannot well be got down in this form; and the two latter, because their doses

ought to be weighed with the utmost exactness, and are therefore proper only for boles. The quantities of dry and liquid ingredients are here to be proportioned so as to make the consistence somewhat thinner than that of the official electaries; and where there are much powders, they ought to be mixed very thin, because they quickly stiffen with a few hours standing, as when made with the powder of the Peruvian bark, and such like dry substances. Regard ought to be had that such things be not herein put together as will ferment, or not lie quiet in the compositions; for volatiles, such as sal ammoniac, hartshorn, and the like, will always be rarifying the mass until they escape. Testaceous

ceous powders, with syrups, or conserves of any manner of acidity, will ferment and spoil the whole; as, likewise, will all the preparations of steel, the salt excepted, that lying quiet in most mixtures. For want of attention to this in prescription, many things are ordered together, which, by that time they come to the patient, cannot be contained in their vessels; and give a great deal of dislike, upon suspicion of a fault in the materials, or the apothecary, whereas it is really in the prescriber. But with the utmost care, many syrups and conserves, in hot weather, will be apt to ferment; and therefore these ought to be calculated in such quantities, as may be taken within two or three days; for when they ferment, they spoil, and ought to be rejected.

Cephalics.

Electarium Cariophyllatum.

Electary of Clove-July-flowers.

Take conserves of clove-July-flowers, one ounce; and of red roses, one ounce and a half; syrup of citron peel, as much as is sufficient to pulp them through a sieve; add of the species of *aromaticum rosatum*, one drachm and a half; ambergrise, five grains: and make them into an electary.

This is a good warm medicine in all nervous diseases, and raises the spirits. In all disorders therefore, from those defects, it is commended to be taken two or three times in a day, with a glass of wine, or any usual drink, after it: the quantity of a nutmeg is enough for an ordinary dose.

Electarium Ducis Sabaudia.

The Duke of Savoy's Electary.

Take sarsaparilla and seeds of

dwarf-elder, of each three drachms; seeds of St. John's-wort, leaves of germander and ground-pine, of each two drachms; angelica-root, round birthwort, cinnamon, of each one drachm and a half; cloves, a scruple; saffron, sixteen grains; reduce all into a fine powder, and make it into an electary, with triple the quantity of clarified honey.

This is indeed fit for an official medicine, and is as easily made in a large quantity as a small one, and will keep. It is contrived on purpose against the gout, and ought to be continued a long time, to answer expectation. It greatly warms and strengthens the fibres; and therefore not only contributes to a regular digestion and concoction of the juices, but prevents any foreign matters lodging by the way: especially in the joints, where it most commonly fixes, and spoils their offices, and gives arthritic and rheumatic pains. The dose is the quantity of a nutmeg twice a day, with a glass of strong wine.

Electarium Paralyticum.

An Electary against the Palsy.

Take mustard seed beat with water, one ounce; pulp it through a sieve, that all the husk may be left behind; to it add conserve of rosemary-flowers, one ounce; spirit of lavender, two drachms. And make them into an electary, *f. a.*

This is an excellent medicine for the use its title expresses; and in the decays of age, when the solids grow crisp and dry, and subject the limbs to tremors, it will do great service, and ought to be taken twice a-day at least; especially in a morning, the quantity of a large nutmeg; drinking after it a glass of rich wine, or a draught of some

julep or diet-drink of the same intention ; to which the reader may turn.

Electarium Cardiacum.

A Cardiac Electary.

Take conserve of clove-July-flowers, and of the yellow of Seville orange peels, of each an ounce ; candied citron peel, green ginger, electary of saffras, juice of kermes strained, of each two drachms ; oil of cinnamon, six drops. Make them into an electary, with as much as is sufficient of syrup of cloves.

This is very warm and strengthening of all the nervous parts, especially the stomach ; where it expels wind, helps belchings, and flatulencies from indigestion. The quantity of a large nutmeg is to be taken two or three times a-day ; drinking after it a glass of some liquor of the same intention.

Electarium à Cinnabari.

The Cinnabar Electary.

Take native cinnabar, half an ounce ; let it be rubbed very fine in a marble mortar, and then mix with it fine sugar one ounce and a half ; and make them into an electary with a sufficient quantity of juice of kermes.

This trusts altogether to the cinnabar, and is given with success in most convulsive disorders ; but there is an exception against this excellent medicine, viz. that it be not too liberally administered to those who have weak nerves, because its force is reckoned so powerful, as to shock such even in their natural textures, and whereby may dispose to tremors, and paralytic shakings. The dose of it is the quantity of an ordinary nutmeg twice in a day.

Electarium Cardiacum magnum.

The great Cordial Electary.

Take conserve of clove-July-flowers, of the yellow peel of oranges and lemons, of each half an ounce ; candied citron, candied nutmeg, candied ginger, electary of saffras, juice of kermes strained, and compound spirit of lavender, of each two drachms ; oil of cloves, cinnamon, and mint, of each two drops ; syrup of raspberries, a sufficient quantity to make them into an electary.

This is a very grateful medicine, and very warm and comforting to the stomach, and all the parts that are affected therefrom by consent of the nerves, and particularly the head : it may be taken about the quantity of a nutmeg at any time, upon weakness, faintness, sickness, or any disorder at the stomach, with a glass of good wine.

Electarium de Vesco Quercino.

Electary of Mistleto.

Take of powder of mistleto, one ounce ; native cinnabar finely levigated, half an ounce ; compound spirit of lavender, two drachms ; oil of rosemary, six drops ; juice of kermes, a sufficient quantity to make them into an electary.

This is nearly what Dr. Fuller gives under the same title ; but the quantity of spirit of lavender he orders, and the syrup to make it up with, unless it be of a consistence almost hard, will let the cinnabar fall to the bottom ; yet this is an error very frequently met with in extemporaneous prescription, for want of a better acquaintance with the shops. This is also calculated against distempers of the head and nerves ; the quantity ought to be that of a nutmeg, two or three times a-day, with a draught

of

of some medicated wine of the same intention.

Electarium de Sinapi.

The Mustard Electary.

Take powder of mustard-seed, half an ounce; conserve of rue, two ounces; syrup of stœchas, a sufficient quantity; oil of rosemary and lavender, of each four drops.

This is from Dr. Fuller; but the mustard seeds will not powder if good, because of their great oiliness; and therefore they are much better beat in a mash with a sufficient quantity of syrup, and forced thro' a pulping sieve. This makes an excellent medicine, which will wonderfully quicken the sense and motion of the fibres in constitutions overflowed with cold rheums and defluxions. It is also a good preservative against fevers of the worst kind; which seizes the spirits, and discover their malignities in the principal parts of the animal frame. It ought to be taken every morning and evening, with some medicated drink, or julep of the same intention.

Electarium Stomachicum.

A Stomach Electary.

Take conserve of red roses and Roman wormwood, of each one ounce; of yellow orange-peels and green ginger, of each half an ounce; long pepper in powder, one scruple; oil of cinnamon, four drops; syrup of quinces, a sufficient quantity, mix.

Electarium Stomachicum alterum.

Another Stomach Electary.

Take conserve of Roman wormwood, an ounce and a half; conserve of Seville orange-peels, and candied ginger, of each half an

ounce; powder of saffron, half a drachm; spirit of sulphur by the bell, ten drops; syrup of quinces, a sufficient quantity. Make them into an electary. Or,

Take the conserves of red roses, two ounces; of hips, half an ounce; candied ginger, three drachms; saffron, one scruple; spirit of sulphur by the bell, twelve drops; syrup of red poppies, or juice of kermes, a sufficient quantity to make them into an electary, and pass it through a pulping sieve. Or,

Take conserve of red roses, two ounces; acidulate with a sufficient quantity of spirit of sulphur by the bell, and pulp through a sieve, with a sufficient quantity of the juice of kermes for an electary.

All that of this form could be intitled stomachics, we have subjoined to this division, because they are all of the aromatic kind, and hereby claim equally to be cephalics. The latter which we have given, extend their influences to the head and whole nervous system, at the same time that they warm, comfort, and strengthen the fibres of the stomach, and dissipate flatulencies, corrugate the membranes, and promote digestion: the last especially is a most elegant medicine, delightful to take, and highly conducive to these good ends. The dose is as much as a large nutmeg, two or three times a-day, with a glass of good stomach-wine afterwards.

Carminatives.

All under the foregoing class have some claim to this title: because all aromatics are carminatives, and disperse vapours and flatulences pent up in the stomach and

bowels ; there is therefore the less need of many examples under this head, so that the few following may suffice.

Electarium Juniperinum.

The Juniper Electary.

Take juniper-berries, one ounce ; beat them in a mortar with a sufficient quantity of syrup of green ginger, til they are almost in a smooth mixture ; then pass them through a pulping sieve ; and mix therewith conserve of rosemary-flowers, one ounce ; electary of bay-berries, three drachms ; oil of caraway, six drops. Make them into an electary, with a sufficient quantity of syrup of clove-July-flowers, or of candied ginger.

This greatly warms the viscera, and dissipates wind ; but if the juniper-berries be thought too troublesome to manage in this manner, a due proportion of the chemical oil drawn from them may be put in, though that is not thought so good. This may be taken the bigness of a nutmeg, three or four times in a day.

Electarium à Baccis Lauri extemporaneum.

The extemporaneous Bay-berry Electary.

Take of conserve of clove-July-flowers and of rosemary-flowers, of each an ounce ; powder of bay-berries, two drachms ; oil of chamomile chemical, six drops ; syrup of cloves, a sufficient quantity for an electary.

Electarium ex Angelica.

Electary of Angelica.

Take angelica-root green, washed and cleaned from all that is not good, one ounce ; beat it with a sufficient quantity of syrup of

green ginger to a paste ; which force through a pulping sieve, and to it put conserve of clove-July-flowers, one ounce ; oil of caraway, six drops ; and with a sufficient quantity of spirit of juniper, make an electary.

Either of these taken two or three times a day, as much as a nutmeg, will greatly break away wind from the stomach ; and are good in all hypochondriacal flatulencies, as well as the following.

Hysterics and Hypochondriacs.

Electarium Hystericum.

An Hysteric Electary.

Take conserve of rue, one ounce ; electary of bay-berries, half an ounce ; gum ammoniac, two drachms ; dissolved in a sufficient quantity of tincture of castor ; powder of myrrh, one drachm ; saffron, half a drachm ; syrup of stinking orrach, a sufficient quantity : mix.

This is good against all kinds of fits and convulsions that arise from uterine disorders ; and too high an organ of spirits. It also helps to deterge the glandular contortions, and make clear passage for the nervous fluids in the minutest fibres. Give as much as a nutmeg, two or three times a day.

Electarium Emmenagogum.

An Electary to promote the Menses.

Take conserve of Roman wormwood, and wood-sorrel, of each one ounce ; electary of bay-berries, half an ounce ; troches of myrrh in fine powder, two drachms ; saffron, one scruple ; syrup of mugwort, a sufficient quantity for an electary.

This is an excellent cleanser for women after childbed, and greatly deterges

deterges the uterine glands, so as to fit all those parts again not only for their natural secretion, but for fresh impregnation: but it must not be used after conception, for fear of abortion. It may be taken twice a-day, as much as a nutmeg.

Electarium Emmenagogum cum Chalybe.

A Steel Electary for the Green-Sickness.

Take conserve of Roman wormwood and damask roses, of each one ounce and a half; salt of steel, two drachms; saffron, half a drachm; powder of cardamoms, one scruple; syrup of steel, or of rhubarb, a sufficient quantity to make them into an electary.

This is adapted to those who labour under obstructions of the menses; and ought to be taken to the quantity of a large nutmeg twice in a day; using exercise with it. It is most proper for such as are pale, and of thin habits; but for the contrary constitutions, the following is best.

Electarium Emmenagogum cum Hellebore.

An Electary to promote the Menses with Hellebore.

Take conserve of Roman wormwood, two ounces; black hellebore in powder, three drachms; salt of tartar, two drachms; asa foetida dissolved in a sufficient quantity of tincture of castor, one scruple; syrup of rhubarb, as much as is sufficient for an electary.

This agrees admirably with sanguine constitutions, who, by some accident, labour under uterine obstructions; for it very powerfully breaks through them, without giving that heat and force to the

blood which chalybeats sometimes do, and occasion that peculiar furor which is difficult to allay: for this rather damps the spirits, and checks their exorbitant sallies. Its dose is as the former.

Electarium Chalybeatum.

A Steel Electary.

Take conserve of rosemary flowers, Roman wormwood and scurvygrass, of each six drachms; *species diambrae* and Winter's bark in powder, of each one drachm; salt of amber, one scruple; steel prepared with sulphur, three drachms; syrup of candied nutmegs, a sufficient quantity to make them into an electary.

It gives relief in the spleen, and all complaints thence arising. Brisk exercise is of great advantage in the use of it. It ought to be taken twice or three times a-day, with a glass of white wine, or some medicated drink of the same intention.

Electarium Splanchnicum.

A Splanchnic Electary.

Take conserve of rosemary-flowers, one ounce; of Roman wormwood, half an ounce; electary of bay-berries, two drachms; powder of black hellebore and pelitory of Spain, of each two drachms; salt of amber, one drachm; saffron, two scruples; gum ammoniac, two drachms, dissolved in a sufficient quantity of tincture of castor; and syrup of the five roots, a sufficient quantity to make them into an electary.

The whole *Materia Medica* cannot furnish out a more effectual remedy against all those disorders, which pass under the names of hypo, spleen, and vapours. Its continued use, for some time, will not

not only render the blood, and all the animal juices, duly fluid; but so deterge and scour all the recesses and secret meanders of the body, that the mind, or director of the animal actions, may meet with no impediments. It may be taken two or three times a-day to the quantity of a nutmeg: and will prevail even in maniacs, if duly followed.

Strengtheners.

To prevent the trouble of too many divisions, we shall include under this head all the subordinate classes it stands divided into, in the second part concerning Simples; and take in even some that might more strictly be ranked with stomatics.

Electarium Astringens.

The Astringent Electary.

Take conserve of roses, four ounces; Japan earth, one ounce; alum, and elixir of vitriol, of each two drachms; syrup of quinces, a sufficient quantity to make an electary.

This is very astringent, and is to be directed only in obstinate fluxes, and to strong people. It is much used in some of the hospitals.

Electarium Incrassans.

An Incrassating Electary.

Take fresh comfrey-roots, two ounces; marshmallow-root, and that of white lilies, of each one ounce; beat them into a pulp, which force through a sieve: then put to them two ounces of fine sugar, half an ounce of *species diatragacanth. frigid.* and with a sufficient quantity of syrup of marshmallows, make them into an electary.

This is somewhat troublesome to make, and will not keep long. It ought to be taken in the quantity of a chestnut, two or three times a-day, whilst a milk diet is used. It is good to check the heat and motion of the blood in hectic constitutions; and to give it a softer and more balsamic consistence; it is of service, therefore, to stop bleeding at the nose, spitting of blood, or hæmorrhages in any other parts. Malt liquors, and too much exercise, agree not with courses of this intention; nor a high spirituous diet. This also allays the heat of urine, and is good in gonorrhœas, and that weakness in women called the whites.

Electarium de Symphyto.

The Comfrey Electary.

Take pulp of fresh comfrey-root, and fine sugar, of each an ounce; conserve of red roses, half an ounce; powder of mastich, a drachm; syrup of quinces, enough to make it into an electary; to which may be added juice of kermes, two drachms; oil of cinnamon, four drops.

This is good against fluxes of all kinds; it very much strengthens the reins, and is therefore particularly of service in old gleans and the whites; in all coughs from catarrhs and defluxions of tickling rheums, this will much avail, and take away those irritations which are continually fretting and wearing the lungs; the dose is the quantity of a nutmeg three or four times in a day.

Electarium Analepticum.

A Restorative Electary.

Take powder of chocolate, and sweet almonds blanched, of each

an ounce ; fine sugar, and conserve of red roses, of each an ounce and half ; pass all through the pulping sieve, after beating them in a mortar with a sufficient quantity of the juice of kermes, and add to them balm of Gilead, two scruples, and syrup of balsam, an ounce. Make them into an electary.

This is an extraordinary composition, to be constantly used for some months together by hectic and consumptive persons, whom it much nourishes, and softens the sharp hot humours, which, in such persons, abrade and wear away the substances of the muscles ; it is to be taken three or four times a-day at discretion.

Electarium Analepticum cordiale.

A Cordial Restorative Electary.

Take powdered chocolate, two ounces ; juice of kermes, half an ounce ; ambergrise rubbed with a little fine loaf-sugar, eight grains ; oil of cinnamon, three drops ; syrup of balsam, an ounce, or what is sufficient.

This is like the foregoing, but somewhat warmer and more cordial, and cannot therefore be indulged in such large quantities ; as much as a chestnut may be taken three or four times a-day. These are both very excellent recipes, and rather suited to the closets than the shops ; for which reason we never, or very rarely, meet with such amongst medicinal prescriptions, and because the good women delight to be their own apothecaries as far as they can.

Electarium restorativum cum Chalybe.

A Restorative Electary with Steel.

Take conserve of Roman wormwood, and candied nutmeg, of each

an ounce ; ginger candied, half an ounce ; steel prepared with sulphur, two drachms ; oil of cinnamon, two drops. Make them into an electary with a sufficient quantity of syrup of the five opening roots.

This will much help to warm and restore a decayed consumptive blood, and give new vigour and colour to the whole œconomy ; it may be taken two or three times a-day with the Spaw-waters, or drinking afterwards any other proper liquor.

Electarium contra Catarrhum.

An Electary against Catarrhs.

Take conserve of red roses, two ounces ; pulp of Malaga raisins, an ounce ; powder of fine mastich, two drachms ; nutmeg, half a drachm ; syrup of white poppies, enough to make all into a thin, smooth electary.

This is a good medicine against all tickling coughs, and covers the larynx with what guards it from the extillations of thin rheums ; it may be taken two or three times a-day, but particularly at going to bed, as much as a nutmeg for a dose.

Electarium ad Hernias.

An Electary against Ruptures.

Take pulp of comfrey-root, half an ounce ; conserve of red roses, an ounce ; powder of blood-stone, finely levigated, two drachms ; dragon's blood, a drachm ; sugar of lead, and balsam of Peru, of each half a drachm ; oil of cinnamon, six drops ; syrup of coral, enough to make all into a smooth electary.

This is a great strengthener, and therefore may so draw up and harden the solids, as to reduce ruptures, and very much prevent them ;

it also may be used as a restraining against hæmorrhages, and all kind of fluxes; to be taken two or three times in a-day to the quantity of a nutmeg, with any proper liquor.

Electarium contra Dysenteriam.

An Electary against the bloody Flux.

Take conserve of red roses, an ounce and a half; sperma ceti, two drachms; yellow wax, three drachms; oil of sweet almonds, half an ounce; syrup of mint, enough to make them into an electary.

The wax, &c. must be melted together, and then put to the conserve after it is pulped; it is of great service in lining the bowels with that mucus which defends them against the irritations of sharp humours, and which a flux has carried off, and opened even the mouths of the blood vessels. I have known some instances, where ingredients of this kind, either in this form or pills, have prevailed in fluxes of long standing, and that have been brought from both the Indies, after all the help that could be had from the usual means, which are generally restraining, but they will not succeed so well as those softer balsamic substances, which, as it were, afresh plaster over the bowels, and by their yielding adhesive qualities stop up the mouths of the vessels, and sheathe the acrimonious humours.

Electarium Stomachicum.

A Stomach Electary.

Take conserve of Roman wormwood, and of Seville orange peels, of each an ounce; powder of mint, two drachms; oil of cinnamon, six

drops; syrup of quinces, enough to make an electary.

This strengthens a weak stomach, that is apt to reject and loath food, and ought to be taken about an hour before meals, as much as a nutmeg, sucking afterwards the juice of half a lemon; it will also do good in habitual diarrhœas, and by degrees so fortify the solids of the whole body, as to remove all kinds of fluxes.

Electarium restringens.

A restraining Electary.

Take conserve of red roses, two ounces; diascordium, half an ounce; bole in fine powder, two drachms; dragon's blood, a drachm and half; balaustines, half a drachm; oil of cinnamon, four drops; syrup of dried roses, a quantity sufficient to make an electary.

Some calculate this on purpose against a diarrhœa, and it is to be taken the quantity of a nutmeg three or four times a-day, or after every stool, refraining, at the same time, from all malt liquors, which in diarrhœas will work as powerfully as cathartics, and suffer nothing to take place while they are used: but this note is to be made herein, that no diarrhœa ought to be stopped if it does not sicken and diminish the strength of a person; for sometimes the constitution finds means, by this way, to get rid of an ill burden, and therefore such discharge is then to be rather encouraged than hindered; but when the patient is thirsty, feverish, and weak, these helps are to be called in.

Electarium de Cinnamomo.

Electary of Cinnamon.

Take the finest cinnamon, in pow-

powder, fix drachms; oil of nutmegs, by expression, two drachms; saffron, half a drachm; balauftines, cochineal, of each a scruple; flowers of Benjamin, half a scruple; juice of kermes, enough to make an electary.

This is chiefly contrived for breeding women; it is a good strengthener, and will help to prevent abortion; it is likewise a good astringent in many other cases, and may be taken the quantity of a nutmeg as often as symptoms require it to be repeated; the proportion of dry powder is here so great, that it will be apt to grow too dry, and stand in need of moistening with fresh juice or syrup.

Electarium contra Hæmoptœn.

An Electary against spitting of Blood.

Take white poppy and henbane-seed, powdered, of each half an ounce; conserve of red roses, an ounce; syrup of corn-poppies, sufficient to make them into a smooth soft electary.

This is an electary greatly recommended by Mr. Boyle for the purposes its title expresses; it cools and thickens the blood, and represses its too great motion, and is therefore good in all hectic; it is to be taken at discretion, according as symptoms are urgent.

Electarium Poterii.

Poterius's Electary.

Take the anti-hectic of Poterius, half an ounce; Haly's powder, fresh made, an ounce and half; syrup of jubebs, enough to make an electary.

Dr. Fuller gives this; but it may be made with any pectoral syrup, or that of marshmallows, because the syrup of jubebs is sel-

dom or never made: he says it destroys all manner of exotic corruptive sharpness and asperities of the blood and juices, and induces a balsamic, soft, and oleous disposition; that it is second to none in a hectic fever, and may be taken two or three times a-day, with a draught of asses milk, as much as the bigness of an ordinary nutmeg.

Balsamics.

Electarium Pectorale.

A Pectoral Electary.

Take raisins and conserve of red roses, of each an ounce, pulped; with a sufficient quantity of syrup of maidenhair, sugar-candy in fine powder, and *species diatragacanthi frigid.* of each half an ounce; spirit of sulphur by the bell, fifteen drops: make an electary with enough of the same syrup.

Electarium Dialthææ.

Electary of Marshmallows.

Take pulp of the root of marshmallows (boiled in barley-water and drove through a sieve), two ounces; of raisins an ounce and half; *species diatragacanthi frigid.* half an ounce; syrup of marshmallows a sufficient quantity; make an electary.

Electarium de Spermate Ceti.

Electary of Sperma Ceti.

Take conserve of hips and archangel-flowers, of each an ounce; sweet almonds blanched, half an ounce; sperma ceti two drachms: beat all, with a sufficient quantity of syrup of marshmallows, so that they may be pulped through a sieve; then add of the *species diatragacanthi frigid.* half an ounce; and with enough of the same syrup make all into a smooth electary.

These

These are all emollients, and will soften and lubricate all the passages, and smooth acrimonious humors, hence they are of great service in all catarrhs and defluxions of sharp rheums from the head and glands of the throat, and will give relief in obstinate hoarsenesses; they are likewise very friendly to the kidneys, and defend those passages from the irritations of sandy matter that often washes through them; they cool the heat of urine, heal gonorrhœas, and allay all pains from stimuli: but care must be had, while all these laudable intentions are in view, that they do not relax and pall the stomach too much, which they are too apt to do; for which reasons they are sometimes acidulated with spirit of sulphur, or such things which help to keep the membranes of the stomach in their due tensions. These are to be given two or three times a-day, or oftener, if symptoms are urgent, to the quantity of a chefnut for a dose, some softening broths or emulsions being drank afterwards.

Electarium Hæmorrhoidale.

An Electary for the Piles.

Take lenitive electary, an ounce and half; flowers of sulphur, three drachms; syrup of violets, enough to make an electary.

This is very good for what its title expresses, especially where persons are subject to be costive; it is to be taken at discretion.

Electarium restaurans.

A Restorative Electary.

Take conserve of hips, two ounces; chocolate in powder, orris-root, of each two drachms; extract of colts-foot (made from a strong decoction evaporated), half an

ounce; syrup of colts-foot, enough to make an electary.

Electarium Conditorum.

An Electary of Preserves.

Take candied satyrion-root, candied eryngo-root, nutmegs and ginger candied, of each half an ounce; chocolate in powder, half an ounce; juice of kermes, enough to make an electary.

Electarium ad Phthisin.

An Electary against a Consumption.

Take conserve of red roses, an ounce and half; candied eryngo-roots an ounce; sweet almonds blanchèd, half an ounce; mastich in powder, a drachm; spirit of sulphur by the bell, fifteen drops; syrup of red poppies, a quantity sufficient to make an electary.

Electarium ad Phthisin alterum.

Another Electary against Consumptions.

Take conserve of hips, an ounce; candied nutmegs and eryngo-root, of each half an ounce: viper's flesh dried and powdered, two drachms; ambergrise, half a scruple; musk, five grains; syrup of balsam, or juice of kermes, a quantity sufficient to make an electary.

Electarium. — Another. —

Take extract of colts-foot, and of new unhopped ale, of each half an ounce; candied nutmegs and eryngo root, of each two drachms; flowers of Benjamin, a scruple; ambergrise and musk, of each five grains; juice of kermes, enough to make an electary.

Electarium. — Another. —

Take extract of Bohea-tea, half an ounce; satyrion-root boiled in Ca-

Canary, and pulped through a sieve, an ounce; chocolate and viper's flesh powdered, of each two drachms; ambergrise and musk, of each five grains. Make all into an electary with a sufficient quantity of viper jelly.

In all languid, wasting constitutions, either from age, acute distempers, or too large evacuations, according to the exigency and indication of particular symptoms, may either of these be used, or others of the same kind contrived, to restore a due elasticity to the solids, and give that generous warmth and consistence again to the juices, as may enable them to deposite proper supplies to the abraded parts, as they circulate through them. And in all intentions of this nature, regard is chiefly to be had to the temperament: where the blood is hot and quick, it must have a load laid upon it by agglutinants, and such ingredients as give a mucilaginous and adhesive property to any fluids they are mixed with; but where the blood is low, and the skin pale and clammy, it must be inspired with warm aromatic compositions, which, at the same time, carry along with them what is adhesive and nourishing, as the candied spices and balsamic glutinous substances of the extracts and jellies; and a suitable diet and way of living must be complied with in all respects, or else they can avail but little. Another use likewise this class may be applied to with great success, and that is in cases of impotency, from a cold chilly blood; for they not only afford due matter to fill the parts of generation with proper juices, but will also warm and stimulate them to coition. These, as

most others of this form, are to be taken two or three times a day, to the quantity of a nutmeg for a dose, drinking some convenient liquor after each.

Electarium vulnerarium.

A vulnerary Electary.

Take conserve of red roses, two ounces; new unsalted butter, half an ounce; yolk of an egg, powder of balsam of Tolu, a scruple and half; balm of Gilead, two scruples; make all into an electary, *f. a.*

The balsams, butter, and egg, must be well incorporated first, and then the conserve added in a smooth pulp. To be taken the quantity of a large nutmeg or chestnut two or three times a-day.

Electarium. — Another. —

Take conserve of red roses, two ounces; conserve of hips, an ounce; Lucatellus's balsam, half an ounce; syrup of balsam, enough to make an electary.

Electarium. — Another. —

Take balsam of Tolu in fine powder, and rubbed with the yolk of an egg, half an ounce; balsam capivi, two scruples; pulp of the conserve of red roses, two ounces; and with a sufficient quantity of balsamic syrup make all into a smooth electary.

Electarium. — Another. —

Take pulp of cassia, an ounce and half; Venice turpentine, and that of Cyprus, boiled to brittleness, and powdered, of each two drachms; rhubarb, half a drachm; gum arabic and *species diatragacanthi frigid.* each a drachm; syrup of marshmallows, sufficient to make an electary.

These

These have not only that adhesive quality of the foregoing, but also somewhat that is, though in a low degree, deterfive; whereby they take place in all ulcerations and tubercles of the viscera, but particularly of the lungs and urinary passages; for which reasons they, or such as are nearly of this kind, are constantly met with in practice for asthma, and all infarctions of the breast; and also in foulnesses of the kidneys, which appear by constant pains and a purulent urine; and in the worst of gleans, for they will deterge and heal a gonorrhœa with safety when the infection is off, though no other means are used; and the whole bulk of medicine can hardly supply a better remedy than the last of these in any such cases: for the common practice, by violent cathartics and mercurials, is too rough; insomuch that, under a pretence of eradicating a malignity, they so weaken the parts, that it becomes difficult to restore them to their proper tone again.

Electarium de Guaiaco.

Electary of Guaiacum.

Take eryngo-root candied, two ounces; with a sufficient quantity of balsamic syrup, pulp it through a sieve, and to it add extract of guaiacum, an ounce; ceruse of antimony, two drachms; and make an electary with what is sufficient, of the same syrup.

This is reckoned much to promote natural transpiration, and to be therefore of service in all cutaneous eruptions from a foul vitiated blood, as also in venereal cases; it is to be taken twice in a day, with a draught of some liquor, suitably medicated, after each dose,

Electarium Æthiopicum.

The Æthiops Electary.

Take æthiops mineral, an ounce; viper's flesh in powder, half an ounce; gum guaiacum, two drachms; conserve of red roses (pulped with a sufficient quantity of syrup of clove-July-flowers) an ounce; and with enough of the same syrup make an electary.

This is a most efficacious prescription in all foulness of blood whatsoever that erodes and ulcerates the inner parts, or deforms the surface, by breaking out upon the skin; and is infallible in the itch, leprosy, and all tartarous eruptions; it may be taken twice a-day, the quantity of an ordinary nutmeg, drinking a glass of any suitable medicated liquor after each dose.

Electarium Asthmaticum.

An asthmatic Electary.

Take flowers of sulphur, an ounce; ginger, half an ounce; saffron, a drachm; musk, five grains; honey, two ounces; and make an electary with what is sufficient of syrup of saffron, or common sugar molosses.

This, with a little alteration, is a very common prescription in asthmatic coughs and infarctions of the breast, and it is reckoned to deterge the bronchia powerfully from viscous adhesions; but it is not so elegant a medicine by much as the following for the same purpose.

Take extract of English liquorice, half an ounce; sperma ceti and balm of Gilead, of each a drachm, rubbed with a little yolk of eggs; conserve of wood-sorrel and rosemary-flowers, of each an ounce; pass all together through a pulp.

a pulping sieve with a sufficient quantity of syrup of red poppies, and then add saffron in fine powder, half a drachm; musk, five grains; and make an electary.

This makes a good medicine enough, and will do great service in all shortness of breath, and coughs thence arising; it may be taken as much as a large nutmeg at a time, twice or thrice a-day, as symptoms are more or less urgent.

Electarium ad Strumas.

An Electary for the King's Evil.

Take æthiops mineral and cinabar of antimony, of each six drachms; earth-worms prepared and powdered, two drachms; salt of amber, tartar of vitriol, and cream of tartar, of each a drachm and half; powder of arum-root, two drachms; of steel prepared with sulphur, three drachms; syrup of the five opening roots enough to make all into a smooth electary.

This is from the prescription of a physician now in great note, for a very obstinate hereditary ill habit, which was continually knotting the glands, and shifting ugly swellings from one part to another, and which would sometimes ulcerate, and be very troublesome; and with the help of the bath it procured a very tolerable constitution; it was ordered the quantity of a nutmeg twice a day, and was continued near three months, but for want of a little conserve, which would only require the dose to be but a little larger, the weight of the heavy powders carry them to the bottom, and will not let them continue equally mixed.

Diuretics.

Electarium Lithonripticum.

An Electary against the Stone.

Take Venice turpentine, an ounce; mix it very well with the yolk of an egg, and then put to it burdock-seeds and gromwell-seeds powdered, of each half an ounce; winter-cherries, two drachms: and with a sufficient quantity of syrup of marshmallows make all together into a smooth electary.

This will assist in cleansing the urinary passages, and forcing away any obstructed gravel or gritty matter; it may be taken the quantity of a nutmeg, as symptoms require, drinking a glass of white-wine or marshmallow-tea after each dose.

Electarium Nephriticum.

A Nephritic Electary.

Take of lenitive electuary, four ounces; Venice turpentine, an ounce; cream of tartar, two drachms. Mix them into an electary.

This is said to be used in some of the hospitals, in obstructions and foulnesses of the urinary passages.

Electarium Terebinthinatum.

A Turpentine Electary.

Take powder of jalap, an ounce; scammony and liquorice, of each half an ounce; resin of jalap, a drachm; salt of tartar, half a drachm; Venice turpentine, enough to make an electary.

This is a good purge in a gonorrhœa, especially in gross constitutions, and ought to be repeated every two or three days, about a drachm for a dose, till the matter is well conditioned. It is also used in the hospitals.

Electarium Ictericum.

An Electary against the Jaundice.

Take green ginger, six drachms ; Venice treacle, two drachms ; powder of turmeric, two drachms ; powder of saffron, a drachm ; *species diambra*, two scruples ; oil of juniper, ten drops. Mix into an electary with a sufficient quantity of syrup of marshmallows.

Electarium Splanchnicum.

A Splanchnic Electary.

Take conserve of scurvy-grass, two ounces ; candied elecampane-root, half an ounce ; powder of arum-root, two drachms ; salt of wormwood, half a drachm ; and with a sufficient quantity of syrup of fumitory, or the five roots, make an electary.

Electarium Diureticum.

A Diuretic Electary.

Take parsley and fennel roots, of each two ounces ; leaves of marshmallows, a handful ; make a strong decoction, which evaporate to an extract, and to it put conserve of scurvy-grass, an ounce ; powder of hog-lice, two drachms ; salt of amber and saffron, of each half a drachm ; and with a sufficient quantity of syrup of marshmallows, or of the five roots, make an electary. Or,

Take pulp of a baked or roasted squill, forced through a sieve, an ounce ; powder of marshmallow-roots, two drachms ; powder of cinnamon, a drachm ; *sal prunellæ* and saffron, of each half a drachm ; conserve of scurvy-grass, an ounce ; syrup of marshmallows, enough to make an electary.

All these are very detergent, and will wear off those beginning lodg-

ments of foreign matter upon the bowels which obstruct and disorder their offices, and precipitate it chiefly by urine ; therefore in the jaundice, spleen, hypochondriacal affections, gravel, and dropries, they will do service ; in those full constitutions which arise from too frequent tippling, and too little exercise, which is the case of many who keep public houses, and hasten to dropries, they are much better than the strong cathartics which are usually given, and the service they do will be much more lasting ; for strong cathartics only force off a great deal by stool, which, though it may be at present pleasing to the deluded patient, yet they so much overstrain the springs of the solids, that by losing their tone they soon fill again ; whereas medicines of this kind gradually break and divide the gross and viscid juices, and fit them for the smaller discharges ; but, because they make no force upon the constitution, they are not much attended to ; and also by degrees they abrade such adhesions as had almost plugged up some of the viscera, and scour the minutest vessels in such manner, that the necessary fluids meet with no hinderance in their circuit, and the body has not an overload to sustain. According to the difference of circumstances, and aggravations of symptoms, these may be varied ; and, to answer any end of moment, ought to be given for some time, because such habitual illnesses as they are designed to remove, will not give way very soon : they may also be assisted by suitable medicated drinks.

Alexipharmics.

Ingredients of the most efficacy under this denomination are hardly to be trusted in this form, because the quantity to be taken at a dose cannot be so well adjusted, and therefore they shall be reserved for the next section of boles, which will much shorten this part.

Electarium Antiepidemicum.

An Electary against the Plague.

Take roots of contrayerva, three ounces; of valerian, of masterwort, and zedoary, of each an ounce and half; seeds of angelica hulled, dittany of Crete, and myrrh, of each a drachm; Virginia snake-root, half an ounce; saffron, three drachms; opium, two drachms; pulp of juniper-berries extracted with Malaga wine, a sufficient quantity, and with enough of the same wine to dissolve the myrrh and opium, make all into an electary with the *syrupus epidemicus*.

This syrup may be supplied with that of red poppies, saffron, or any of the like kind, by those who have a mind to make the medicine, which is well enough contrived to answer the intention expressed by its title, and may very properly be reserved as a family medicine in any such apprehensions, by way of preservative, to be taken in the quantity of a nutmeg every night going to bed, and in infusion, as the aggravations of symptoms indicate.

Electarium Camphoratum.

The Camphor Electary.

Take conserve of rue, two ounces; Venice treacle, half an ounce; camphor, a scruple; syrup of red poppies, enough to make into an electary.

This is also a convenient medicine to be kept by way of preservative against pestilential contagions, and may be taken every night going to bed, and in a morning fasting, drinking a glass of generous wine afterwards. But these are seldom wanted in our country, and therefore are most likely to be of use to such as travel into countries frequently alarmed with such kind of infections.

Electarium cum Cortice Peruviano.

The Peruvian Electary.

Take the Peruvian bark in fine powder, an ounce; make it into an electary, with a sufficient quantity of syrup of red roses.

This is infallible in all intermittents, and is to be given the quantity of a chestnut every three or four hours betwixt the fits.

Electarium. — Another. —

Take the bark in fine powder, half an ounce; powder of snake-root, a drachm; Mithridate, two drachms; syrup of red poppies, enough to make an electary.

This is fitted for those agues where the intervals are not very distinct, but there remains some indisposition after the fit is off: it is warmer than the former and assists transpiration, to the diminution of which such disorders chiefly owe their rise, and for which purposes also the following may be yet more proper in some constitutions.

Electarium. — Another. —

Take fine powder of the bark, half an ounce; Mithridate, two drachms; camphor, half a drachm, rubbed fine with a little oil of sweet almonds; and make all into an electary, with a sufficient quantity of syrup of cloves.

Electarium.—Another.—

Take bark in fine powder, fix drachms; oil of cinnamon, fix drops; spirit of sulphur by the bell, twenty drops; syrup of raspberries, a sufficient quantity. Make an electary.

This is properest where there is a diarrhœa, or grounds to expect one; the acid also renders the medicine rougher, and helps more to corrugate and straiten the fibres, in which the operation of these consists; without the oil of cinnamon, this latter prescription is likewise very good to stop any hæmorrhages, either of the nose, womb, or any other part.

Electarium.—Another.—

Take bark in fine powder, fix drachms; steel prepared with sulphur, two drachms; powder of saffron, half a drachm; syrup of steel, enough to make an electary.

This is suitable for women where the menses are obstructed, which is often their case in agues; or where there is any danger of their being so from the bark; it will also help to warm and raise the blood to that state, as secures against a return of the distemper.

Electarium.—Another.—

Take bark in fine powder, fix drachms; æthiops mineral, two drachms; syrup of white poppies, enough for an electary.

In robust constitutions, and where the glands are foul and schirrous, this may with success be used.

Mild Cathartics.

Electarium solutivum.

An opening Electary.

(1.) Take lenitive electary, an ounce; pulp of cassia, half an ounce; rhubarb in fine powder,

a drachm; ginger, a scruple; make an electary, with a sufficient quantity of syrup of violets. Or,

(2.) Take pulp of stewed prunes, two ounces; tamarinds and cassia, of each half an ounce; powder of rhubarb, two drachms; syrup of violets, as much as is sufficient. Or,

(3.) Take pulp of stewed prunes, an ounce and half; cream of tartar, two drachms; powder of rhubarb, a drachm; oil of aniseeds, three drops; syrup of damask roses, enough to make an electary.

After the same manner may be contrived any solutive electaries, which are convenient for such who are apt to be colicive, as many lean people, and most claret-drinkers, are; the quantity of a nutmeg may be taken at any time, without any observation of what is usual in the stronger purges.

Coolers.

Electarium Refrigerans.

A Refrigerating Electary.

(1.) Take pulp of tamarinds, and of the conserve of barberries, of each an ounce and half; *species diatragacanth. frigid.* half an ounce; spirit of sulphur by the bell, twenty drops; syrup of lemons, a sufficient quantity. Make an electary. Or,

(2.) Take pulp of tamarinds and flocs, of each an ounce and half; pulp of sweet almonds blanched, with a sufficient quantity of syrup of raspberries, make an electary. Or,

(3.) Take the conserves of barberries, two ounces; and of red roses, half an ounce; spirit of sulphur by the bell, fifteen drops; syrup

syrup of cloves, enough for an electary. Or,

(4.) Take pulp of tamarinds, and marmalade of quinces, of each an ounce and half; *species diatragi-canth. frigid. sal prunellæ*, of each two ounces; syrup of oranges, enough to make an electary. And,

Electarium acidum.

The four Electary.

Take conserve of wood-forrel, four ounces; cream of tartar, six drachms; tartar of vitriol, two drachms; syrup of wood forrel,

sufficient to make an electary.

These are chiefly of use in fevers, to cool the mouth, by holding a bit therein till it dissolves away; and also to abate heat of urine, and promote its discharge; but there are so many fruits and preserves for such purposes, which are generally so much more agreeable to the patient, that there is not often occasion for prescriptions of this nature; the last indeed is sometimes prescribed in the jaundice, and in redundances of choler.

S E C T. VII.

Of Boles.

THE present practice very much uses this form, and it is indeed the most convenient of any for mixing things, especially those of such efficacy, that their doses require to be exactly adjusted; as the stronger alexipharmics, cathartics, and opiates. When the prescriber has a mind to give alteratives in the same form, for many patients will else fail of their proper doses; such a proportion of any electary, in the foregoing section, may be taken as will make a bole not exceeding two drachms. In this division, therefore, we shall give examples only under the following heads.

Alexipharmics.

(1.) Take *lapis contrayervæ*, one scruple; Mithridate, two scruples; syrup of red poppies, as much as

is sufficient to make a bole. Or,

(2.) Take Gascoign's powder, one scruple; snake-root, eight grains; saffron, three grains; confection of alkerms, as much as is sufficient to make a bole. Or,

(3.) Take Mithridate, one drachm; contrayerva-root, in powder, fifteen grains; syrup of red poppies, as much as is sufficient to make a bole. Or,

(4.) Take contrayerva-root in powder, and Virginia snake root, of each ten grains; Venice treacle, half a drachm; syrup of poppies, as much as is sufficient. Or,

(5.) Take the purple powder, one scruple; saffron, five grains; conserve of wood-forrel, half a drachm; syrup of red poppies, as much as is sufficient to make a bole. Or,

(6.) Take Gascoign's powder, half

half a drachm ; powder of saffron, three grains ; confection of alker-mes, as much as is sufficient to make a bole. Or,

(7.) Take *lapis contrayerva*, one scruple ; conserve of rosemary flowers, half a drachm ; confection of alkermes, as much as is sufficient to make a bole. Or,

(8.) Take Goa stone, fifteen grains ; Virginia snake root and saffron, of each five grains ; Venice treacle, half a drachm ; syrup of red poppies, as much as is sufficient to make a bole.

In an ordinary fever, any of these may be prescribed, and repeated every six hours, or sooner or later, as symptoms appear ; until a diaphoresis, or some critical discharge, abates it ; and these may be varied as any particular circumstances indicate, as where a diarrhoea is to be checked.

(9.) Take *lapis contrayerva*, fifteen grains ; diascordium without honey, two scruples ; oil of cinnamon, one drop ; syrup of white poppies, as much as is sufficient. Or,

(10.) Take diascordium without honey, one drachm ; snake-root and saffron, in fine powder, of each six grains ; diacodium, as much as is sufficient. Or,

(11.) Take Venice treacle, half a drachm ; red coral and bole, of each ten grains ; London laudanum, one grain ; diacodium, as much as is sufficient. Or,

(12.) Take red coral, one scruple ; diascordium without honey, half a drachm ; oil of cinnamon, one drop ; diascordium, as much as is sufficient to make a bole.

When blisters are used, and the urine is hot, or difficult to make, the following alterations may be suitable.

(13.) Take conserve of wood-forrel, one drachm ; saffron and snake-root, of each five grains ; *sal prunellæ*, ten grains ; syrup of marshmallows, as much as is sufficient. Or,

(14.) Take Venice treacle, half a drachm ; Gascoign's powder, fifteen grains ; saffron, five grains ; *sal prunellæ*, ten grains ; syrup of raspberries, as much as is sufficient. Or,

(15.) Take contrayerva-root in fine powder, one scruple ; saffron, five grains ; *sal prunellæ*, ten grains ; balsam capivi, six drops ; syrup of marshmallows, as much as is sufficient to make a bole.

And after these, instead of the usual juleps, barley-water emulsions, and white wine, they may be plentifully drank. In a delirium, and convulsive twitches of the tendons, the highest alexipharmics are to be given ; so that care be taken sufficiently to dilute at the same time : such as,

(16.) Take of the egg-electary, half a drachm ; camphor, saffron, and castor in fine powder, of each five grains ; confection of alkermes, as much as is sufficient. Or,

(17.) Take contrayerva-root, one scruple ; snake-root and castor, of each six grains ; Venice treacle, half a drachm ; syrup of red poppies, as much as is sufficient. Or,

(18.) Take Mithridate, half an ounce ; *lapis contrayerva*, twelve grains ; castor, salt of amber, and saffron, of each four grains ; confection of alkermes, as much as is sufficient. Or,

(19.) Take Gascoign's powder, one scruple ; Matthews's pill, seven grains ; camphor, castor, and salt of amber, of each five grains ; alkermes confection, as much as is sufficient.

In the last stage of the distemper, when there is no other hope, but that there is life, and the patient begins to hiccup :

(20.) Take contrayerva-root, one scruple; volatile salt of hartshorn, and salt of amber, of each eight grains; saffron, five grains; confection of alkermes, as much as is sufficient. Or,

(21.) Take oriental bezoar, fifteen grains; Mithridate, half a drachm; syrup of red poppies, as much as is sufficient to make a bole. Or,

(22.) Take musk, volatile salt of hartshorn, of each ten grains; snake-root, fifteen grains; confection of alkermes, as much as is sufficient to make a bole.

These latter ought to be mixed as near as possible to their being taken, because the volatiles will waste. They may be repeated every three or four hours, if symptoms are pressing, and helped down with suitable juleps; in which also may be dropped any volatile spirits. These are all in proportion for adult persons: for children, and those of weaker constitutions, they may be lessened accordingly. The consistence of a bole ought to be somewhat stiffer than that of a common electary.

Cathartics.

(1.) Take powder of jalap, half a drachm; scammony rubbed very fine with an oiled pestle, five grains; oil of cloves, one drop; syrup of buckthorn, as much as is sufficient to make a bole.

This powerfully purges watery and pituitous humours, and therefore is very proper for robust corpulent constitutions. Or,

(2.) Take powder of jalap, half

a drachm; oil of cloves, one drop; syrup of buckthorn, as much as is sufficient.

There is hardly a better purge than this in a dropsy; although some give those which are rougher: as,

(3.) Take gamboge, one scruple; cream of tartar, half a drachm; oil of cloves and aniseed, of each one drop; syrup of buckthorn, as much as is sufficient.

Or,

(4.) Take elaterium, two grains; resin of jalap, six grains; cream of tartar, half a drachm; oil of juniper, two drops; syrup of buckthorn, as much as is sufficient.

The resinous substances must be very well rubbed with the cream of tartar, or salt of tartar, else they will gripe intolerably. For milder purges, take either of the following:

(5.) Take powder of rhubarb, half a drachm; lenitive electary, one drachm; syrup of damask roses, as much as is sufficient. Or,

(6.) Take powder of jalap, one scruple; pulp of cassia, one drachm; powder of nutmeg, three grains; syrup of rhubarb, as much as is sufficient. Or,

(7.) Take either of the compound powders of senna, half a drachm; pulp of cassia, one drachm; or as much as is sufficient to make it into a bole. Or,

(8.) Take calomel, fifteen grains; conserve of red roses, half a drachm: make them into a bole to take over night; and take any common purging potion, or a lenitive bole, the next morning.

For children, the dose of these may be proportionably lessened; and where there is suspicion of worms;

worms, or slimy humours, in the bowels, from a stinking breath, and a hard belly.

(9.) Take the earl of Warwick's powder, ten grains; lenitive electary, as much as is sufficient to make a bole. Or,

(10.) Take rhubarb in powder, eight grains; calomel, six grains; lenitive electary, as much as is sufficient. Or,

(11.) Take resin of jalap and calomel, of each four grains; powder of cinnamon, one grain; conserve of rosemary flowers, as much as is sufficient. Or,

(12.) Take scammony, three grains; calomel, six grains; powder of cinnamon, one grain; syrup of rhubarb, as much as is sufficient to make a bole.

Where there is calomel used, care must be taken that the bole is not made too thin; because, otherwise, the weight of the calomel will be apt to make it separate, and be lost

in taking; and notwithstanding the prejudices of some against mercury, yet these are as safe purges as any, and may be given to children in the first year without hazard, if rightly prepared and proportioned to their strength.

Opiates.

(1.) Take Matthew's's pill, eight grains; Mithridate, half a drachm; make a bole. Or,

(2.) Take Venice treacle, half a drachm; London laudanum one grain; conserve of wood-sorrel, half a drachm; make a bole. Or,

(3.) Take diascordium without honey, one drachm, for a bole. Or,

(4.) Take conserve of red roses and Mithridate, of each half a drachm; liquid laudanum, fifteen drops: make a bole. Or,

(5.) Take Venice treacle, a drachm; liquid laudanum, ten drops: make a bole.

S E C T. VII.

Of Pills and Lozenges.

A Great deal is reduced into the first of these forms, for the conveniency of taking; because they can be so wrapped up, as not to give any taste as they pass; which is an inducement to some, who will not be prevailed upon by any other form. The latter is likewise contrived in compliment to the palates of some nice people; and is generally concerned in things which are toothsome.

Cephalics.

Pilule Antipodagrica.

Pills against the Gout.

Take the best Russia castor, half an ounce; white amber, german-der, ground-pine, of each six drachms; salt of amber, ceruse of antimony, balsam of Tolu, opopanax, of each one ounce; roots of butterbur, three ounces; Chio turpentine, two ounces; balsam of sulphur terebinthinated, as much as

as

as is sufficient to make into a mass for pills.

This is taken from Bates, where it stands marked for being frequent in his own practice; half a drachm is ordered twice a day, and to be continued some months together, to prevent the gout and rheumatic pains.

Pilule Succinatæ.

Amber Pills.

Take ambergrise, two grains; musk, one grain; opium, three grains; salt of amber, and flowers of Benjamin, of each six grains; balsam of Peru, as much as is sufficient to make them into nine pills.

These are good in the hiccup, when it happens upon an empty stomach; and may be given at three doses, as there is occasion.

Pilule Castoreæ.

Castor Pills.

Take Russia castor, one drachm; salt of amber, half a drachm; balsam of Peru, as much as is sufficient: make them into twenty-four pills.

These are good in all nervous distempers in either sex, whether the origin be in the head or uterus: five may be taken two or three times a day, and continued as there is occasion.

Pilule cum Cinnabari.

Pills with Cinnabar.

Take native cinnabar finely powdered, two drachms; castor and salt of amber, of each one drachm; oil of marjoram, twelve drops; balsam of Peru, one drachm; syrup of piony, as much as is sufficient. Make into pills, nine out of each drachm.

The ingredients of this are very good; and to take three of these pills two or three times in a day

for some time together, will eradicate very obstinate nervous complaints; and do great service to persons subject to the head-ach, giddiness, epilepsies, and the palsy.

Trochisci Apoplectici.

Lozenges against the Apoplexy.

Take ambergrise, half a drachm; oil of rosemary, cinnamon, and nutmeg, of each two drops; oil of cloves, and marjoram, of each one drop; spirit of lavender, eighty drops; fine sugar, four ounces. Make them into lozenges, with as much as is sufficient of the mucilage of gum tragacanth.

These are proper to chew and roll about in the mouth frequently, by such who are subject to apoplectic disorders; for this way the warm aromatics more immediately penetrate the fibres than when swallowed at once into the stomach.

Trochisci Cephalici.

Cephalic Lozenges.

Take *pulvis de gutta*, and native cinnabar, of each half a drachm; oil of rosemary, and nutmegs, of each two drachms; fine sugar, two ounces; mucilage of gum tragacanth, as much as is sufficient.

Trochisci Paralytici.

Lozenges against the Palsy.

Take sugar in fine powder, one ounce; spirit of lavender compound, sixty drops; oil of rosemary, four drops; mucilage of gum tragacanth, as much as is sufficient.

These may also be given at discretion to such who are inclinable to nervous disorders, as they are best liked.

Trochisci

Trochisci Odorati.

Perfumed Lozenges.

Take musk and ambergrise, of each six grains; grind them fine with a little white sugar-candy, and ten drops of spirit of roses; then put to them powder of orris, four ounces; starch, two ounces; fine sugar, four ounces; and gum tragacanth, as much as is sufficient.

These are of no great service, unless to those few who delight in sweets; and to disguise a stinking breath.

Trochisci Stomachici.

Stomach Lozenges.

Take Spanish angelica root in fine powder, one drachm; oil of cinnamon, nutmeg, and cloves, of each two drops; oil of mint, and wormwood, of each one drop; fine sugar, four ounces; mucilage of gum tragacanth, made with orange-flower-water, as much as is sufficient.

These are good to warm the stomach, and dissipate such flatulencies as sometimes communicate their disorders a great way farther; and so are of service to the head.

Trochisci ad emulgendam Salivam.

Lozenges to occasion Spitting.

Take pellitory of Spain in fine powder, half an ounce; mastich, two drachms; oil of cloves, and marjoram, of each one drachm. Make them into lozenges and pellets, with as much as is sufficient of the best scented yellow bees-wax.

These may be of use to such who want a discharge of rheum from the glands about the mouth, and cannot comply with the custom of smoking tobacco for that purpose. For a great many com-

plaints arise from those parts being overcharged with moisture, for which this would be a convenient drain, the heat of it irritating the glands to the discharge of their contents.

Hysterics.

Pilule Emmenagogæ.

Pills to promote the Menfes.

Take borax, and myrrh, of each one drachm; birthwort, and saffron, of each one scruple; oil of penny-royal, savin, and cloves, of each two drops; syrup of the five opening roots, as much as is sufficient to make pills, ten out of each drachm.

Pilule Hystericæ.

Hysteric Pills.

Take galbanum strained, asa foetida, and gum ammoniacum, of each one drachm; castor, camphor, and salt of amber, of each fifteen grains; oil of amber, five drops; balsam of Peru, as much as is sufficient to make into pills, twelve out of each drachm.

Pilule. — Other. —

Take powder of savin, dittany of Crete, of each one drachm; myrrh, galbanum, gum ammoniacum, castor, of each two drachms; make all into a mass with syrup of mugwort, as much as is sufficient, and form twelve pills out of each drachm.

These all promote the uterine discharges, and do service in many hysterical affections; but they must not be meddled with upon any suspicion of being with child; for they are so forcing as to occasion abortion. To help the menfes, they ought to be taken about the time of expecting them; and in other cases for a constancy, some weeks

weeks together, three, twice in a day. They also would be of service in all disorders of the spleen, in either sex : for there is a great affinity between those, and what are termed hysterical.

Strengtheners.

Pilulæ Cretacæ.

The Chalk Pills.

Take chalk, white sanders, and nutmegs, of each equal parts, and make them into pills, with as much as is sufficient of Chio turpentine, ten out of each drachm.

Pilulæ Terebinthinatæ.

Turpentine Pills.

Take Venice turpentine, boiled in water to a due consistence, half an ounce ; amber, dragon's blood, bole, of each half a drachm : make ten pills out of each drachm.

Pilulæ Astringentes.

Astringent Pills.

Take fine bole, dragon's blood, red coral, amber, mastic, astringent saffron of steel, of each one drachm : oil of cinnamon, and nutmegs, of each six drops ; and make a mass with as much as is sufficient of turpentine, and form ten pills out of each drachm.

These are good in all weaknesses of the reins, and will be of service in the whites and gonorrhœas ; four or five may be taken twice a day ; but they are not to be meddled with, where the running is virulent, until necessary cathartics have been administered. They will do good likewise in fluxes of the belly, which arise from an habitual relaxation. But some of the following are more directly calculated for such purposes.

Pilulæ cum Sanguine Draconis.

Dragon's Blood Pills.

Take fine dragon's blood, two drachms and an half ; sugar of lead, and roch-alum, of each fifteen grains ; Venice turpentine, as much as is sufficient to make forty-eight pills.

Pilulæ de Terra Japonica.

Japan Pills.

Take Japan earth, two drachms ; oil of cinnamon, six drops ; diaecodium, as much as is sufficient to make pills, nine out of each drachm.

These greatly corrugate and draw up the relaxed fibres of the stomach and bowels ; and therefore will not only be of service in fluxes, but also assist in digestion. They may be taken two or three times a-day, four or five in a dose.

Pilulæ ad Dysenteriam.

Pills against the Bloody Flux.

Take the best scented yellow bees-wax, half an ounce ; Japan earth, and spermaceti, of each one drachm ; sugar of lead, one scruple ; oil of cinnamon, twelve drops. Make them into a mass by the fire, and form ten pills out of each drachm.

This is a most effectual medicine for what its title expresses ; for it not only strengthens the fibres, but also, as it were, afresh plasters over the bowels, with that mucus they naturally are supplied with, and which the acrimony of humors had torn off, and washed away. It is also excellent in old gleets, and the whites in women. To which purposes likewise the following are calculated ; but are not so easy or safe.

Pilule ad Gonorrhœam.

Pills for a Clap.

Take sugar of lead, and camphor, of each two drachms; camell, half an ounce. Make them into a mass with as much as is sufficient of Venice turpentine, and form it into a hundred and twenty pills.

This is an efficacious composition: for some it will salivate, and others not; and therefore requires a great deal of skill to manage it. The dose is five pills at night going to bed.

Pilule Stomachicæ.

Stomach Pills.

Take powder of cinnamon, mace, nutmeg, of each one scruple; cloves, long pepper, balaustines, of each half a scruple; extract of gentian, one drachm and a half; *elix. proprietatis*, as much as is sufficient to make them into pills.

These warm a weak cold stomach, that is filled with crudities and flatulencies; and by degrees give a new firmness and strength to the fibres; and procure a good digestion.

Pilule Martiales.

Steel Pills.

Take salt of steel, two drachms; galbanum strained, as much as is needful to give a consistence, and syrup of the five opening roots, as much as is sufficient to make them into pills.

Or, (2.) Take salt of steel, and gum ammoniacum, of each half a drachm; zedoary, and extract of gentian, of each two drachms; syrup of steel, as much as is sufficient to make them into pills, N^o 9. out of each drachm.

These are very convenient for such as cannot take steel in any

other form: the latter will best agree with cold weakly stomachs, because warmed with the zedoary; for steel too bare will with some be apt to prove emetic. Either of these are excellent for young girls, who meet with difficulty in the first eruption of the menses, and are apt afterwards to have them obstructed. They may be given twice in a-day, three for a dose. There are many more examples of this kind from the present practice, for which the following may suffice.

Or, (3.) Take salt of steel, one drachm; saffron, and galangal in fine powder, of each half a drachm; extract of gentian as much as is sufficient.

Or, (4.) Take salt of steel, one drachm; aloes, two drachms; gum ammoniacum, half a drachm; balsam of Peru, as much as is sufficient.

Or, (5.) Take steel prepared with sulphur, two drachms; saffron, half a drachm; extract of gentian, as much as is sufficient.

Pilule Gentianæ.

Gentian Pills.

Or, (6.) Take powder of gentian, two drachms; salt of wormwood, two scruples; extract of gentian, one drachm; syrup of the five roots, as much as is sufficient.

Pilule Febrifugæ.

Febrifuge Pills.

Take powder of chamomile flowers, two drachms and a half; diaphoretic antimony, one drachm; salt of wormwood, half a drachm; mucilage of gum tragacanth, as much as is sufficient.

The two last are intended against intermittents; and in old agues that have returned after the use of the bark; they will sometimes succeed,

ceed, where nothing else will. They ought to be taken three or four times in a day, five pills at a dose, that are made ten out of each drachm; and if they fail in this, they will be of some service in mending the stomach, and helping digestion.

Trochisci Hemoptoici.

Lozenges against Spitting of Blood.

Take Japan earth, two drachms; astringent saffron of steel, one drachm; sugar of lead, and starch, of each half a drachm; fine sugar, four ounces; mucilage of gum tragacanth, as much as is sufficient to make them into lozenges.

This may be taken at discretion, by any who are subject to spit blood, and they will also do service in all sorts of fluxes, whether of the belly or other parts.

Trochisci Peruviani.

Peruvian Lozenges.

Take of the Peruvian bark, one ounce; reduce it into a fine powder; balsam of Tolu, two drachms; of Gilead, half a drachm; sugar, half a pound; mucilage of gum tragacanth, as much as is sufficient to make them into lozenges.

This is in Dr. Fuller's Pharmacopœia, with two drachms of balsam of capivi, which would make it too nauseous to take in such a form; for its bitterness will render it troublesome enough to many without that. They who can take these, will find service from them in all hectic indispositions, and beginning consumptions.

Balsamics.

Pilulæ Styracinae.

Storax Pills.

Take strained storax, two drachms; flowers of sulphur, one drachm;

white Benjamin, half a drachm. Make them into pills with a warm pestle, and as much as is sufficient of balsamic syrup.

These are good to thicken and dry up sharp tickling-rheums, and prevent those coughs which proceed from them, and threaten a consumption, without timely remedy. They may be taken twice a day, three or four at a time, for a month together.

Pilulæ Asthmaticæ.

Pills against an Asthma.

Take gum ammoniacum strained, one drachm; saffron, salt of amber, flowers of Benjamin, of each half a drachm; balsamic syrup, as much as is sufficient to make them into forty-eight pills.

These are good for the same as the foregoing; being also somewhat deterfive; so that they are of service in many nervous cases, wherein asthmas have very often a share. They may be taken three for a dose, and repeated three or four times a-day.

Or, take millepedes, three drachms; gum ammoniacum strained, one drachm and a half; flowers of Benjamin, one drachm; saffron, and balsam of Peru, of each one scruple; balsam of sulphur, as much as is sufficient.

Or, take flowers of sulphur, and Benjamin, of each half a drachm; saffron, one scruple; gum ammoniacum strained, one drachm; common tar, as much as is sufficient to make them into pills.

These will do great service, where the lungs begin to be stuffed with viscid or acrimonious juices; and wear off those short husky coughs, which are signs of tubercles, and beginning ulcerations. They ought to be taken two or

three times a day, three at a dose ; drinking some convenient pectoral apozem after each.

Pilulæ Gilcadensēs.
Gilead Pills.

Take white sugar-candy powdered, two drachms ; the cold species of gum tragacanth, one drachm ; balsam of Tolu, two scruples ; flowers of Benjamin, one scruple ; balm of Gilead, as much as is sufficient. Or,

Pilulæ cum Stermate Ceti.
Sperma Ceti Pills.

Take sperma ceti, one drachm ; white sugar-candy in powder, two drachms ; grind these well together ; and then with a warm pestle, and as much as is sufficient of syrup of balsam, make them into pills.

These are not only balsamic and emollient, with regard to the lungs, but vulnerary, and good to heal inward bruises, or other injuries ; and are very proper and convenient after delivery. Where persons cannot take the sperma ceti in any other form, three or four of these for a dose may be taken twice a day.

Pilulæ Pectorales.
Pectoral Pills.

Take powder of elecampane, orris, liquorice, of each one scruple ; saffron, flowers of Benjamin, of each half a scruple ; white sugar-candy, two scruples ; balsam of sulphur anisated, as much as is sufficient.

In asthmas, wheezing coughs, and all infarctions of the lungs, these will do service. They may be taken twice a day, three for a dose.

Pilulæ Sanctæ.
The Holy Pills.

Take gum guaiacum, and resin of the same wood, of each one drachm and a half ; oil of the same, twenty drops ; balsam of Peru, as much as is sufficient to make them into pills.

These are contrived for such as care not for the usual diet-drinks of the woods, and are good for the like purposes, to dry up superfluous humidities, assist transpiration, and sweeten the blood. They may be taken twice a day, three for a dose.

Pilulæ Tolutanæ.
The Tolu Pills.

Take balsam of Tolu, one drachm ; gum guaiacum, two drachms ; flowers of Benjamin, balsam of Peru, of each half a drachm ; oil of juniper, eight drops. Make them into pills with as much as is sufficient of the yolk of an egg.

These are pretty much like the foregoing, but somewhat less absorbent, and more balsamic. They are good not only where there is suspicion of beginning exulcerations about the breast, but also in the urinary passages ; and are excellent in the gonorrhœa. They may be taken every morning and night, three or four for a dose.

Pilulæ contra Catarrhum.
Pills against a Catarrh.

Take pills of Ruffus, one drachm ; storax pills, half a drachm ; oil of aniseed, three drops. Make them into twenty pills.

These are well contrived, both to stop the defluxion of tickling rheum, which continually pro-
vokes

vokes coughing ; and to divert it by a proper discharge ; whereby it is prevented from straitening and stuffing any of the passages. They may be taken two or three every night.

Pilulæ Catarrhales alteræ.

Other Pills against a Catarrh.

Take pure opium, one grain ; extract of saffron, four grains. Make them into pills. Or,

Take pil. Ruffi, one scruple ; opium, one grain ; make them into pills.

Both these are to be taken going to bed : and as the former is good to stop a defluxion of humours upon the glands of the fauces, and promote its discharge by the skin ; these are contrived to divert it by stool ; and are very good for that purpose.

Pilulæ Cephraëticæ.

Cephraëtic Pills.

Take stomach pills with gums, aleophrangine pills, gum guaiacum, and salt of steel, of each four scruples ; salt of wormwood and extract of gentian, of each two scruples. Make them into pills, with as much as is sufficient of gum ammoniacum dissolved in vinegar of squills, ten out of each drachm.

The salt of wormwood makes the mass so crumbly, as to be troublesome to form into pills ; and therefore the more gum is allowed, the better that is prevented ; but then the dose ought to be increased, else the other ingredients will not be taken in their intended quantity. The whole composition is a powerful deobstruent, and is therefore of use in almost all chronic disorders from obstructions. They keep the body moderately open ; and will do great

service in hypochondriacal affections. They ought to be taken a month together at least, four or five for a dose, every night going to bed.

Pilulæ de Allio.

Garlic Pills.

Take juice of garlic, half an ounce ; gum ammoniacum, one drachm and a half ; saffron, a scruple ; millepedes prepared, one drachm ; flowers of Benjamin, half a scruple ; oil of aniseed, four drops ; elecampane in powder, as much as is sufficient.

This is chiefly calculated against difficulty of breathing ; and will do good service in most complaints of that kind. To take five, twice a day.

Pilulæ de Guaiaco.

Guaiacum Pills.

Take gum guaiacum and aloes, of each a drachm and a half ; balsam of Peru, as much as is sufficient to make them into pills.

These differ not much from the cephrætic pills ; and avail in the same complaints. To be taken three or four every night going to bed.

Pilulæ de Croco.

Saffron Pills.

Take extract of saffron, one scruple ; flowers of Benjamin, half a drachm ; juice of liquorice, one drachm ; oil of aniseed, four drops. Make them into pills, with as much as is sufficient of balsam of Peru.

These warm and thin the blood, and make it fitter to pass through the lungs ; and are therefore to be recommended in sluggish heavy temperaments, disposed to asthmas and dropsies. They may be taken

two or three times a-day, three for a dose; somewhat warm being drank after them.

Pilulæ de Ammoniaço Magistrates.

The Magisterial Ammoniac Pills.

Take gum ammoniac dissolved in vinegar of squills, two drachms; fine aloes, one drachm and an half; myrrh, mastich, Benjamin, of each half a drachm; saffron and salt of wormwood, of each one scruple; syrup of the five roots, as much as is sufficient to make into pills.

These are recommended against the spleen, and all disorders from a heavy blood. They may be taken every night, five for a dose.

Pilulæ Cachecticæ.

Cachectic Pills.

Take fine picked gum ammoniac in drops, and the best Succotrine aloes, of each one drachm and a half; steel prepared with sulphur, a drachm; oil of aniseed, six drops; syrup of steel, enough to make them into a mass, out of each drachm of which make twelve pills.

This composition, as many before likewise of the same kind, is judiciously contrived to open all manner of obstructions in the larger passages, and therefore helps in the spleen, hysterical disorders, and promotes the menses. Dose, four or five every night going to bed.

Pilulæ Splenetica.

Pills against the Spleen.

Take spikenard in fine powder, a drachm; asa fœtida strained, and ens Veneris, of each half a drachm; oil of amber, eight drops; balsam of Peru, a quantity sufficient to make them into pills. Or,

Take ens Veneris, four scruples; saffron, long pepper, Virginia snake-root, spikenard, of each a scruple; galbanum, four scruples; tincture of myrrh, what is sufficient.

In all hypochondriacal disorders, and those also called hysterical, these are very suitable, and by continuance for some time, two or three times a-day, three or four to a dose, they will prevail against the most obstinate complaints of this kind. The following also is calculated for the same purposes, by one heretofore of considerable note in practice, with the addition of some brisk cathartics, which may make them not so proper for some.

Pilulæ Ecphrasticæ.

Ecphrastic Pills.

Take species of hiera, two ounces; salt of steel, half an ounce; and make them into pills with syrup of the five roots, or extract of gentian.

These are good in all gross and foul habits inclining to the jaundice and dropsies, especially in strong robust constitutions, which have been spoiled by intemperance and a gross diet; to be taken five or six twice in a day.

Pilulæ Ecphrasticæ Sylvii.

Sylvius's Ecphrastic Pills.

Take gum ammoniacum strained, two scruples; salt of steel calcined to whiteness, a scruple; myrrh and castor, of each fifteen grains; saffron, half a scruple; troches of alhandal, a drachm; resin of jalap, and scammony prepared, of each a scruple; oil of fennel, five drops: *elixir proprietatis*, enough to make them into fifty pills.

These

These are very powerful in cutting and wearing away those viscidities, which not only clog the viscera, but even fur up; as it were, the passages of the nerves, whereby sensation, and what communication the mind has by their means, is much interrupted; such things therefore are used not only with success in all hypochondriacal cases, but will prevail, by a continued use, even in that height of melancholy which may justly be called distraction:

Pilulæ Ictericæ.

Pills against the Jaundice.

Take cream of tartar and cochineal, of each half a drachm; Venetian sope, two drachms: make them into pills. Or,

Take Venetian sope, two drachms; saffron, salt of steel, and salt of amber, of each a scruple; oil of juniper, ten drops; make them into pills. Or,

Take turmeric in fine powder, and saffron, of each half a drachm; gum ammoniacum dissolved in vinegar, Venice sope, of each a drachm and a half; oil of juniper, twelve drops; make them into pills, twelve out of each drachm. Or,

Take tartar of vitriol and saffron, of each two ounces; salt of amber, a scruple; Venetian sope, two drachms; oil of juniper, ten drops; make them into pills. Or,

Take Venice sope, an ounce; oil of aniseeds, thirty drops; make them into pills.

Any of these will conquer the most obstinate jaundice, if duly continued, and assisted with the usual aperitive apozems; they may be taken five to a dose, two or three times a day.

Pilulæ Diurcticæ.

Diuretic Pills.

Take Venice sope, two drachms; salt of amber, and *sal. prunel.* of each half a drachm; oil of juniper, twelve drops; make them into pills.

Pilulæ Nephriticæ.

Nephritic Pills.

Take millepedes, crude sal ammoniac, and Venetian sope, of each a drachm; saffron, a scruple; oil of juniper, ten drops; make them into pills with a sufficient quantity of Venice turpentine. Or,

Take powder of bees, two drachms; *sal. prunel.* a drachm; salt of amber, and mustard-seed, of each half a drachm; oil of aniseeds, twelve drops; Venice turpentine, a sufficient quantity. Or,

Take crabs eyes prepared, a drachm; camphire, a scruple; cantharides in fine powder, half a scruple; Venice turpentine enough to make them into small pills.

These are not to be prescribed but in cases of great obstinacy, that will not give way to milder methods, for they stimulate so much, that it renders them inconvenient on many accounts; and there is nothing under this intention that is reducible into pills, which does not do the same; and therefore it will rarely happen in practice, that this form will be required; for the safest diuretics are such as dilute and soften, and therefore are most to be expected amongst the liquid forms.

Alexipharmics.

This is an inconvenient form for most alexipharmics, because they generally consist of substances

which are aromatic and volatile, and will not lie in a pill, without extending their bounds, as has already in the preceding part been shewn of volatile salts, or else they will evaporate and be lost; therefore this is never to be made use of but when the prejudices of a patient will not so easily comply with what is necessary herein under any other form, which will make a very few examples in this intention sufficient.

Pilulæ Alexiteriæ.

Alexiterial Pills.

(1.) Take Virginia snake-root in fine powder, a drachm; camphor and salt of amber, of each half a drachm; make them into pills with a sufficient quantity of diascordium, if it be not too thick, or else diacodium. Or,

(2.) The *lapis contrayervæ*, half a drachm; saffron, a scruple; cochineal, half a scruple; salt of amber and castor, of each six grains; diacodium, enough to make them into pills. Or,

(3.) Take diaphoretic antimony, and Goa stone, of each half a drachm; saffron, camphor, castor, and salt of amber, of each half a scruple; Mithridate, what is sufficient. Or,

(4.) Take powder of scordium, a drachm; snake-root, and saffron, of each a scruple; treacle of Andromachus, enough to make them into pills. Or,

(5.) Take cochineal, two drachms; saffron, a drachm; honey, enough to make them into pills. Or,

(6.) Take Virginia snake-root, a drachm and a half; saffron, camphor, and salt of amber, of each half a scruple; make them into pills with a sufficient quantity of Mithridate.

Thus any of the boles in the preceding section may, by a small quantity of fluid, be reduced into pills, when a patient will not otherwise take them: and of most of these, if twelve pills be made out of each drachm of the mass, about five will be a dose, and may be repeated every three or six hours, according to the urgency of symptoms, and particular circumstances of the patient.

Cathartics.

Pills are the most convenient form for ingredients of this intention, and therefore we shall be more particular in examples therein.

Pilulæ Cragulariæ.

Pills against a Surfeit.

Take diagrydium and species hieræ, of each two drachms; aloes Succotrine, half an ounce; oil of cloves, ten drops; make them into a mass with a sufficient quantity of syrup of saffron.

These are proper to take after any debauch, or feeding upon what does not digest, and are little different from the common hiera, only somewhat quicker by reason of the scammony; they may be taken early in the morning, five to a dose, if ten pills be made out of each drachm; they will likewise do service in preventing the gout, and many other diseases frequent amongst those who live high.

Pilulæ Catholicæ.

The Catholic Pills.

Take pil. cochinæ, a drachm; extract of Ruidius, two scruples; resin of jalap, a scruple; oil of aniseed, two drops; make them into pills with a sufficient quantity of balsam of Peru.

These very well deserve to be kept in the shops ready mixed thus for a common purge, being well fitted for most cases that want evacuation. Or they may be thus made :

Pilulæ.—Others.—

Take pil. cochinæ, and extract of Ruidius, of each a drachm ; resin of jalap and calomel, of each half a drachm ; oil of cloves, three drops ; balsam of Peru, enough to make them into pills.

These are yet somewhat brisker than the former, and will suit with most who want purging : if ten pills be made out of each drachm, four will be enough for a dose in most constitutions ; and for weakly people, the dose may be proportionably abated.

Pilulæ Cephalicæ.

The Head Pills.

Take pil. fœtidæ of the college, fifteen grains ; resin of jalap, castor, and salt of amber, of each five grains ; oil of amber, two drops ; spirit of lavender, what is sufficient to make into five pills.

It is the common opinion, that pills are more proper for the head than any other form ; because they lie longer in the stomach, and by their irritations there, occasion a flux of humours from the nerves, and remote parts, which they carry down with them by stool ; these are only for one dose, and are moderate in operation : they will work notwithstanding with the strongest bodies ; for the salt of amber, though not cathartic in itself, yet greatly promotes their operation. The usual way of taking these is two over night, and the rest the morning following ; but it seems much better to take them early in the morning, for those over night,

which are given under the notion of preparing the humours for the other to carry off, will be ready to operate by the morning, and leave a nausea at the stomach, that makes the next to be taken very loathsome, and apt to be thrown up again.

Pilulæ Chalybeatæ Catharticæ.

Purging Steel-Pills.

Take Ruffus's pill, a scruple ; salt of steel, five grains ; make them into five pills, with a sufficient quantity of balsam of Peru, or syrup of rhubarb.

These are very proper to purge those who are inclining to a chlorosis, and may be taken every night for a week together, for they will work but little, if the Ruffus's pill be good, and made of the best aloes.

Pilulæ.—Others.—

Take gum ammoniacum, two drachms ; salt of steel, half a drachm ; scammony prepared with sulphur, a drachm ; oil of cloves, three drops : make ten pills out of each drachm, after it is made into a mass, with a sufficient quantity of syrup of buckthorn.

This is not only good, as the former, against the green sickness ; but is also proper in all hypochondriacal cases, and hysterical disorders : it may be given every other morning, for three or four times together, five to a dose.

Pilulæ Stomachicæ catharticæ.

Pills to purge the Stomach.

Take Ruffus's pill, a scruple ; resin of jalap, and salt of tartar, of each five grains ; oil of mint, a drop : make them into five pills, with a sufficient quantity of *elixir proprietatis*.

This very well answers the same intention as the *tinctura sacra*, when the bitterness of that cannot be endured by some patients; it makes but one moderate dose, and may be taken early in the morning every second or third day, for three or four times together: this is likewise good to promote the menses, if taken about the time they ought to flow.

Pilulæ Choliceæ.

Pills against the Colic.

Take pil. ex 'duobus, half a drachm; calomel, half a scruple; London laudanum, two grains; make them into five pills.

It requires great skill to know when purging is necessary in the colic; for, in some that are from hysterical disorders, cathartics, and even clysters, can hardly be endured, because the least stimulus promotes convulsions, and therefore opiates and anodyne fomentations only are of use: but in a bilious colic, to give opiates only, would quiet the bowels, until they had strained so much into the blood as to cause a fever, and therefore it is necessary the humours should be carried off by purging; but because the peristaltic motion is, in this distemper, often interrupted, if not quite inverted, and a cathartic alone rustles too much, therefore opium is very conveniently added to procure so long truce from pain, that the purge may, as it were unfelt, act upon and help downwards the offending humours, which intention is likewise much assisted by softening diluters: in these cases likewise, and under this management, purges may be given much stronger than at other times, not only because the distemper requires it, but be-

cause opium mitigates their severity; for the like purpose the following also, which is somewhat more gentle, may be given.

Pilulæ.—Others.—

Take extract of Rudius, half a drachm; London laudanum, a grain and a half; chemical oil of chamomile, three drops: make them into pills. Or,

Take pil. cochineæ, half a drachm; Thebaic extract, a grain and half; oil of cloves, a drop: make them into five pills.

Pilulæ Hydragogæ.

Pills to purge Water.

Take gamboge, fifteen grains; oil of juniper, two drops; Mithridate, enough to make them into five pills. Or,

Take resin of jalap, five grains; gamboge and salt of tartar, of each ten grains; oil of aniseed, three drops; balsam capivi, a quantity sufficient for five pills. Or,

Take gamboge, a scruple; salt of tartar, five grains; oil of aniseed, three drops; balsam of Peru, enough to make them into five pills.

These are all good in dropsies, but are only fit for strong constitutions, and where the viscera are sound; and therefore, in an anasarca and œdematous swellings, they will force away abundance of water and strangely reduce the unwieldy bulk; but if restoratives and warm stomachics are not given after, the parts will soon fill again, because they are rather more strained by such forcible medicines.

Pilulæ Arthriticæ Catharticæ.

Purging Pills against the Gout.

Take resin, or extract of turpeth, resin of jalap, and calomel, of each a scruple.

a scruple; opium, three grains; soap of tartar, fifteen grains; balsam capivi, enough to make them into fifteen pills.

Three of these may be taken over night, and they will hardly operate till next morning, and then with a great deal of ease and moderation; so that in the gout or rheumatism, they may be taken five nights together, and they can hardly fail of doing good: in many instances they have been known, at the second or third dose, to have carried the fit quite off; and it is upon this basis only, that such obstinate distempers are to be reached, viz. by sending in powerful cathartics, which shall be restrained by opium from exerting themselves in the first passages, and therefore fitted to operate upon the most distant parts, where the offending humours have their scene of action. The following are of

the same kind, and may be depended upon.

Pills. — — — *Others.* — —

Take panacea of antimony, four grains; opium, a grain and a half; extract of black hellebore, three grains; or sufficient to make them into one or two small pills.

Other preparations of antimony, that are strongly purgative, may be managed in the same manner; and it is by these that many empirics have got great fame, when persons of learning and judgment are backwards in adventuring on things where there is any hazard, though these, by a skilful hand, can never do harm; they are the basis of Lockyer's pill, and many that are now in great esteem in the most obstinate rheumatisms, though made and sold only by ignorant people.

S E C T. VIII.

Of Powders.

IN extemporaneous prescriptions, this is the readiest form for many things in substance; and this also may be observed, that the dose of any thing in powder is just enough, with a sufficient quantity of any liquor (some convenient syrup is generally used), to make into a bole.

Cephalics.

Because these are of a volatile nature, no powder under this division ought to be made long before

it is to be taken; and where volatile salts, such as those of hartshorn, and the like, are prescribed, directions should be given to mix them but just as they are to be taken, or to be included, in the mean time, in a close stopped bottle; which is difficult to do, if divided into doses.

Pulvis Cephalicus.

A Powder for the Head.

(1.) Take species diambrae, powder of crabs-claws compound

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(i. e. Gascoign's powder), of each a drachm; oil of cinnamon, a drop. Mix and divide them into six doses. Or,

(2.) Take marjoram, Arabian stœchas flowers, of each five grains; nutmegs, three grains; mustard-seed, two grains; oil of rosemary, a drop. Make them into a powder for one dose. Or,

(3.) Take nutmegs, a drachm; cinnamon, half a drachm; mace, cloves, marjoram, bettony, rosemary, lavender-flowers, of each half a scruple: make all into a fine powder. and divide it into doses, of half a drachm each. Or,

(4.) Take rhodium-wood, a drachm; yellow Sanders, Florentine orris, of each half a drachm; Spanish angelica, a scruple; mace, ten grains; apoplectic balsam, two grains: make them into a gross powder.

The last of these is designed only for the scent, but might also be of service if powdered fine, and taken inwardly, for which reason damask roses are left out, which some put in: the former are of service in all nervous disorders, and they strengthen and fortify the head against fumes and vapours from indigestion, and a distempered fluid, which they purge and clear away from the fibres, as much as a common cathartic cleanses the first passages; they may be taken morning or night, or both, in any convenient liquor, or made into a bole with a marinadale. Or,

(5.) Take the white part of peacock's dung, sixteen grains; salt of amber, five grains. Make them into a powder for one dose.

This, by some, is accounted a specific in an epilepsy and verrigo,

but the present practice does not much regard such things; it is ordered twice a day, in a glass of wine, or made into a bole. Or,

(6.) Take male piony-root, human skull, of each five grains; native cinnabar, half a scruple. Mix them in a powder for one dose. Or,

(7.) Take *pulvis de gutteta*, fifteen grains; castor, and troches of myrrh, of each six grains; saffron, three grains. Make them into a powder for one dose. Or,

(8.) Take mistletoe in powder, native cinnabar, of each half a drachm; salt of amber and castor, of each five grains. Make them into a powder for one dose. Or,

(9.) Take troches of myrrh, fifteen grains; saffron, castor, and salt of amber, of each five grains; oil of rosemary, a drop. Make them into a powder for one dose.

These are more designed for regulating the disorders that arise from a distempered nervous fluid, than to repair its waste, and fortify the tone of the nerves, as those of the aromatic kind are; and therefore these are also of service in hypochondriacal and hysterical affections, and to be prescribed in spasms, or convulsions of any kind whatsoever; and it is with this sort that the convulsions of children are to be encountered, only lessening the doses in proportion to their age: they are apt to be repeated as often as particular symptoms require. Or,

(10.) Take mustard-seed and cloves, of each sixteen grains; nutmeg, a drachm; cinnamon and mace, of each half a drachm; marjoram and lavender-flowers, of

of each a scruple. Make them into a powder in doses, of half a scruple each.

This is, as it were, a mixture of the two former kinds of cephalics, for the mustard deterges, as the aromatics warm and strengthen the nerves; it may be taken once or twice a-day in any convenient liquor; or being sprinkled upon a toast, and soaked in wine or ale, it may be eat.

Carminatives.

Pulvis Carminativus.

Powder to expel Wind.

(1.) Take seeds of anise and sweet fennel, of each a drachm; cinnamon, nutmeg, cloves, and saffron, of each half a drachm. Make all into a fine powder for eight doses. Or,

(2.) Take aniseed and sweet fennel seed, of each half a drachm; nutmeg and cinnamon, of each a scruple; long pepper and cloves, of each six grains; mastich, a scruple. Make all into a fine powder for six doses. Or,

(3.) Take cinnamon, mace, nutmeg, cloves, and ginger, of each a scruple; seeds of anise, caraway, coriander, sweet fennel, bay-berries, of each half a drachm; loaf-sugar, two drachms. Make all into a fine powder, and divide it into doses of two scruples each. Or,

(4.) Take the thin yellow rind of Seville oranges, cummin-seed, of each ten grains; castor, five grains; long pepper, a grain. Make them into a powder for one dose. Or,

(5.) Take seeds of coriander, a drachm; aniseed and sweet fennel-seed, of each a scruple; nutmeg, ten grains; cinnamon, cloves, of each a scruple; white sugar, two scruples: make them into a fine

powder, to be divided into doses of half a drachm, or two scruples each, or keep it together to rub upon a toast.

These are all of service to break wind off the stomach, and disperse those flatulencies that arise from indigestion, but chiefly from the spleen, and a heavy blood; for a weak stomach is not so much fortified by these things, as by bitters and subastringents, for their oiliness palls the stomach, especially if they be loaded with an addition of chemical oils, as some injudiciously order, and they occasion troublesome and offensive belchings; where the disorder is therefore only in the stomach, half a lemon, or its juice squeezed out, is a much better digestive; but these are of service in the flatulencies of hypochondriacal persons, and will help to give ease in all hysterical colics, especially if joined with somewhat of a narcotic quality; to young children, who are much subject to the gripes, a proportionable diminution of the dose will frequently procure ease, if given in their victuals, or any other convenient vehicle.

Hysterics.

Pulvis Hystericus vulnerarius.

A healing Hysterical Powder.

(1.) Take spermaceti, half a drachm; castor and saffron, of each three grains; white loaf-sugar, half a scruple. Make this a powder for one dose. Or,

(2.) Take zedoary, one scruple, in fine powder; troches of myrrh and spermaceti, of each fifteen grains; balsam of Peru, two drops. Mix into a powder. Or,

(3.) Take spermaceti and fine loaf-sugar, of each half a drachm. Make them into a powder.

These are most suited to cleanse and heal the uterus after delivery, and are proper to take, whether any hysterical symptoms appear or not; because they forward those necessary cleansings, which being obstructed, will do a great deal of mischief.

Pulvis Hystericus foetidus.

The foetid Hysteric Powder.

(4.) Take troches of myrrh, fifteen grains; castor, salt of amber, and saffron, of each five grains; asa foetida, two grains. Make a powder for one dose. Or,

(5.) Take myrrh, cassamunair-root, of each ten grains; castor, and salt of amber, of each five grains. Make a powder for one dose. Or,

(6.) Take wild valerian-root, one scruple; castor and saffron, of each five grains; asa foetida, three grains. Make a powder for one dose. Or,

(7.) Take powder of safin, and myrrh, of each ten grains; castor and saffron, of each four grains; grains of paradise, two grains. Make a powder for one dose. Or,

(8.) Take wild valerian-root, cassamunair-root, of each eight grains; troches of myrrh, ten grains; saffron and castor, of each three grains. Make a powder for one dose.

These are of that kind that deaden and destroy that inordinate emotion of the nervous fluid, which arises from uncommon titillation, or irritation of the uterine fibres; and, in some measure, also help to deterge and empty the glands of those parts, whose turgescency contributes to such disorders; for this reason, they are by no means proper for persons with child, for fear of abortion. On the same account, likewise, the

following are to be used with like caution.

Pulvis Emmenagogus.

A Powder to promote the Menstrues.

(1.) Take salt of steel, and myrrh, of each eight grains; saffron and castor, of each five grains; oil of safin, one drop. Make a powder for one dose. Or,

(2.) Take borax, salt of steel, and saffron, of each five grains; fine loaf-sugar, one scruple; oil of penny-royal, one drop. Make a powder for one dose. Or,

(3.) Take powder of black hellebore, ten grains; of safin, castor, and saffron, of each five grains; salt of amber, four grains. Make a powder for one dose. Or,

(4.) Take powder of black hellebore, fifteen grains; salt of amber, six grains; saffron, five grains. Make a powder for one dose.

In all obstructions of the menses, and the proper uterine discharges, these will be of service, whether to single or child-bearing persons. It has been already shewed where the steel, and where the hellebore compositions are most suitable for these purposes. They may be given once or twice a-day, in a little penny-royal water, or white-wine, or made into boles with syrup of mugwort.

Pulvis Hystericus odoratus.

The sweet Hysteric Powder.

(1.) Take cassamunair root, one scruple; aromaticum resatum, ten grains; musk and camphor, of each three grains. Make them into a powder for one dose. Or,

(2.) Take *pulvis de guttata*, cinabar native, of each fifteen grains; musk and camphor, of each four grains. Make a powder for one dose. Or,

(3.) Take

(3.) Take *species diambrae*, one scruple; camphor and salt of amber, of each three grains. Make a powder for one dose. Or,

(4.) Take borax, ten grains; *species diambrae* and saffron, of each five grains; salt of amber, musk, and camphor, of each three grains. Make a powder for one dose.

There are not many hysterical cases wherein sweets will not agree, yet they sometimes chance to hit, when nothing else will; but in hypochondriacal disorders, which are near akin in the other sex, they frequently take place with success. They may be given once or twice, or oftner in a day, with white wine, penny-royal-water, or any other convenient vehicle, as symptoms indicate.

Strengtheners.

Pulvis Incrassans.

An Incrassating Powder.

(1.) Take root of comfrey, mouse-flesh dried in an oven, of each half a scruple; powder of gum tragacanth, five grains. Make a powder for one dose. Or,

(2.) Take powder of a whole hedge-hog baked dry in an oven, one scruple; mastich and gum tragacanth, of each five grains. Make a powder for one dose.

These are principally directed against involuntary making of urine, and are accounted specifics in such cases; therefore we shall not pretend to reason upon their *modus operandi*, but leave them to the practice of such as have faith in them; with the powder of a female secundine; cock's gizzard, and the like conceits. Or,

(3.) Take seeds of henbane, and of white poppies, of each six grains; sealed earth and bole, of

each ten grains; sugar of roses, eight grains. Make a powder for one dose. Or,

(4.) Take Solomon's seal, comfrey-roots, of each ten grains; fine Armenian bole and Japan earth, of each five grains. Make a powder for one dose. Or,

(5.) Take marshmallow root, gum arabic, dragon's blood, of each five grains; fine Armenian bole, ten grains. Make a powder for one dose.

These all conduce both to thicken and soften the blood, and cement lacerated vessels; and are therefore good against hæmorrhage of all kinds, and also contribute to prevent, if not restore ruptures, and those unnatural distensions of some parts from weakness. They ought to be used for some time together, and given at least twice a day, in a glass of red wine, or any other convenient liquor, or made into boles with marmalade, or syrup of quinces.

Pulvis Astringens.

An Astringent Powder.

(1.) Take kermes berries and tormentil root, of each fifteen grains; oil of cinnamon, one drop. Mix for one dose. Or,

(2.) Take Japan earth, and species for the confectiō of hyacinth, of each fifteen grains, oil of cinnamon one drop; mix for one dose. Or,

(3.) Take balaustines, and powder of cinnamon, of each ten grains; species for the confectiō of hyacinth, and diambrae, of each five grains. Mix for one dose. Or,

(4.) Take astringent saffron of steel, ten grains; dragon's blood and alum, of each five grains; sugar of lead, two grains. Make a powder for one dose. Or,

(5.) Take

(5.) Take gum lac and dragon's blood, of each ten grains; astringent saffron of iron, fifteen grains. Mix them into a powder for one dose. Or,

(6.) Take mastich and Japan earth, of each ten grains; sugar of roses, fifteen grains; oil of cinnamon, one drop. Make a powder for one dose. Or,

(7.) Take Lemnian and Japan earth, bole and dragon's blood, of each five grains; oil of cinnamon, one drop. Make a powder for one dose. Or,

(8.) Take astringent saffron of iron, and seeds of henbane, of each ten grains; sugar of lead, three grains. Make a powder for one dose. Or,

(9.) Take alum and nutmeg, of each one scruple. Make them into a powder for one dose.

These are from moderately binding to powerfully styptic; and therefore may be prescribed as particular symptoms and exigencies require. Some are good against abortion, and all those weaknesses which women are most subject to, particularly the whites; and a continued use will prevail against old gleets in either sex: diarrhoeas likewise are to be removed by them. But for such symptomatic fluxes as happen in fevers, at their first appearance, especially those which precede the small-pox and measles, the following may be yet more convenient.

(10.) Take species for the confection of hyacinth, one scruple; red coral, fifteen grains; oil of cinnamon, one drop. Mix for one dose.

(11.) Take species for the confection of Fracastorius, one scruple; red coral, ten grains; oil of cinnamon, one drop; mix for one dose. Or,

(12.) Take species for the con-

fection of hyacinth; and of Fracastorius, of each twelve grains; oil of cinnamon, one drop. Mix for one dose.

These ought to be repeated every three, four, or six hours, as the symptoms are more or less pressing; care being taken that such distance be observed, that above two grains of opium are not exceeded in twelve hours time.

Pulvis Absorbens.

An Absorbent Powder.

(1.) Take white chalk, crabs eyes, and fine loaf-sugar, of each one scruple. Make a powder for one dose. Or,

(2.) Take oriental pearl prepared, and crabs eyes, of each fifteen grains; white chalk, ten grains; fine sugar, one scruple. Make them into a powder for one dose. Or,

(3.) Take bole and red coral, of each sixteen grains. Make them into a powder for one dose. Or,

(4.) Take calcined hartshorn levigated, and Armenian bole, of each fifteen grains; white chalk and fine sugar, of each ten grains. Make them into a powder for one dose.

These may be given almost at discretion, in any convenient liquor; and are chiefly good in immediately destroying that corrosion at the stomach from some sharp humour, which is commonly called the heart-burn. But they are of most service to children: the doses being proportionably lessened; because children are much more subject to acidities in the first passages; and indeed owe most of their disorders to such causes; upon which account these are properly termed sweeteners: but in those foulnesses of blood which deform the

the skin with blotches, and which are supposed to want such correctors, these will avail very little; therefore common practice relies too much upon them in such cases.

Pulvis Æthiopicus.

The Æthiopic Powder.

Take æthiops mineral, made without fire, half a pound; crude antimony, one pound. Mix them into a powder.

This is an admirable medicine in all those obstinate cutaneous foulnesses, wherein the foregoing will not take place, and will conquer almost the worst leprosy. It may be given half a drachm, two or three times in a day; and it would be of advantage to have the patient well vomited first. This is prescribed in one of the public hospitals: and I have been informed it is a great secret amongst farriers and some skilful leaches, for curing what they commonly call the mange in cattle.

Stomachics.

Pulvis Stomachicus Amarus.

A Bitter Stomachic Powder.

(1.) Take powder of gentian root, fifteen grains; yellow peel of Seville oranges, eight grains; saffron five grains. Make them into a powder for one dose. Or,

(2.) Take gentian root and bayberries, of each ten grains; galangal and saffron, of each five grains. Make them into a powder for one dose. Or,

(3.) Take chamomile-flowers, gentian root, and Winter's cinnamon, of each ten grains; saffron, four grains. Make them into a powder for one dose. Or,

(4.) Take gentian root, nutmeg, and roach-alum, of each one scruple; oil of cinnamon, one drop; cochineal, five grains. Make them into a powder for one dose.

These warm and invigorate a cold relaxed stomach, and, where they can be thus complied with in substance, are, in some cases, of better service than tinctures made with them. In old agues, that have eluded the force of the bark, these will often make a cure; and the latter will seldom fail to do it, if taken twice a day on the well days, and an hour before the coming of the fit. They are also good in those cachexies which tend towards a dropsy, and will destroy worms: and because what is principally for this last intention, has, amongst the simples, been given under this division, we shall subjoin a few examples of such as are generally in extemporaneous prescriptions for such purposes.

Pulvis Anthelminthicus.

Powder to kill Worms.

(1.) Take powder of coralline, and æthiops mineral made without fire, of each fifteen grains; saffron, two grains. Make them into a powder for one dose. Or,

(2.) Take powder of tin, ten grains; æthiops mineral, fifteen grains; powder of safin and saffron, of each three grains. Make them into a powder for one dose. Or,

(3.) Take tin reduced to an impalpable powder, one scruple; æthiops mineral, ten grains; fine sugar, six grains. Make them into a powder for one dose.

For young children the doses may be proportionably lessened, and one may be given every night and morning in a little common treacle; for they will not conveniently mix with thin liquors. Their use ought to be continued for some days together; and then they will hardly ever fail of destroying what worms are in the bowels. But where such things
also

also require the help of cathartics, as generally they do, then every third day give some of those hereafter to be met with under that division in this section.

Balsamics.

There are few simples of this class reducible into the forms of a powder, because they are generally natural balsams, and not hard enough for any but the liquid forms. Little therefore can be conveniently prescribed in this manner for the purpose of a balsamic.

Pulvis Balsamicus.

A Balsamic Powder.

(1.) Take balsam of Tolu, ten grains; myrrh and Benjamin, of each five grains. Make them into a powder for one dose. Or,

(2.) Take sperma ceti and crabs eyes, of each one scruple. Make them into a powder for one dose. Or,

(3.) Take spermaceti, one scruple; myrrh, ten grains; flowers of Benjamin, five grains; fine loaf-sugar, ten grains. Make them into a powder for one dose.

These are healing and pectoral, and may be given twice a day, either with a spoonful of sugar, or made into a bole with any convenient pulp or syrup; for they will not easily mix with a thin aqueous liquor; because of the fatness of the spermaceti. It is here also to be noted, that there is a balsam of Tolu too thin for this purpose; but some there is which comes over in shells quite brittle, and will easily powder with rubbing. Or,

(4.) Take mastich and myrrh in fine powder, of each fifteen grains; flowers of Benjamin, five grains.

Make them into a powder for one dose. Or,

(5.) Take olibanum, powder of gum tragacanth, and of Benjamin, of each ten grains; London laudanum, one grain. Make them into a powder for one dose. Or,

(6.) Take powder of gum arabic, mastich, and myrrh, of each ten grains; flowers of Benjamin, five grains; London laudanum, one grain and a half. Make them into a powder for one dose.

These are good in catarrhs and tickling defluxions of rheum, and may be given every night, going to bed, either mixed with some proper liquor, or made into a bole with marimalade.

Pulvis Splanchnicus.

A Powder for the Viscera.

(1.) Take spikenard, saffron, mastich, long pepper, and rhubarb, of each five grains; turmeric, ten grains. Make them into a powder for one dose. Or,

(2.) Take spikenard, cinnamon, mastich, and rheubarb, of each six grains; saffron, five grains. Make them into a powder for one dose.

Steel is very conveniently prescribed with things of this intention, and therefore may be added to the foregoing. Thus,

(3.) Take rhubarb, ten grains; cinnamon and mastich, of each five grains; salt of steel, and saffron, of each five grains. Make them into a powder for one dose. Or,

(4.) Take cinnamon, spikenard, salt of steel, saffron, and rhubarb, of each five grains. Make them into a powder for one dose.

These are of service in all cachexies, foulnesses of the viscera, and particularly in the jaundice and dropfy; but other forms so much
more.

more conveniently supply us with plenty for this purpose, that no more examples of this kind are here required.

Diuretics.

Pulvis Diureticus.

A Diuretic Powder.

(1.) Take sal prunel. twelve grains; egg-shells powdered, eight grains; salt of amber, four grains; sugar, one scruple. Make them into a powder for one dose. Or,

(2.) Take crabs-eyes levigated, fifteen grains; cream of tartar, sal prunel. of each eight grains; salt of amber, four grains. Make them into a powder for one dose. Or,

(3.) Take tartar of vitriol and sal prunel. of each six grains; powder of crabs-eyes fifteen grains. Make them into a powder for one dose. Or,

(4.) Take tartar of vitriol and cream of tartar, of each one drachm; oil of cloves, one drop. Make them into a powder for one dose.

These are for little else than to cool the urine in gonorrhœas. and where the parts are eroded or hurt by the raking of gravel; for they are not much to be encouraged in obstructions of urine; because they force so strongly that way, that if they cannot break through, they will render the obstruction more obstinate. The last of these is after the manner of such, who imagining all distempers owe their origin to an alkali, constantly prescribe acids; but as this hypothesis was not founded on experiments, nor conducted by a mechanical way of reasoning, it is now entirely forgot. For such diuretics as soften and widen the passages, which is

much the more laudable practice, take the following for examples.

(5.) Take saxifrage root and marshmallow root, of each one drachm; crabs-eyes and fine loaf-sugar, of each two drachms: sal prunel. one drachm. Make them into a powder; and allow half a drachm to each dose. Or,

(6.) Take millepedes prepared, sal prunel. and sperma ceti, of each six grains; fine loaf-sugar, one scruple. Make into a powder for one dose. Or,

(7.) Take powder of marshmallow root, ten grains; salt of amber, five grains; fine white sugar, one scruple. Make them into a powder for one dose.

At the same time that these forward the discharge by urine, they also relax and widen the passages; which is the surest and most safe way to procure such evacuation. And all that can be conveniently prescribed for this intention, does also, at the same time, answer that of a cooler; so that there will not be occasion to instance any thing of that form under this division; these being sufficient for the same.

Alexipharmics.

A great deal that was ordered for this intention in the form of a bole, may be suitable also to this; by omitting the liquid ingredients; and giving the other in powder; however, the following examples may be of some service.

(1.) Take *lapis contrayervæ*, one scruple; saffron, five grains. Make them into a powder. Or,

(2.) Take contrayerva root, half a scruple; Virginia snake-root and saffron, of each five grains. Make them into a powder for one dose. Or,

(3.) Take

(3.) Take Gascoign's powder, one scruple; Virginia snake-root, eight grains; saffron and castor, of each four grains. Make them into a powder for one dose. Or,

(4.) Take Virginia snake-root, Spanish angelica, and contrayerva root, of each six grains; myrrh and saffron, of each five grains. Make them into a powder for one dose. Or,

(5.) Take diaphoretic antimony, fifteen grains; Virginia snake-root, eight grains; camphor and saffron, of each three grains. Make them into a powder for one dose. Or,

(6.) Take tormentil-root, two drachms; Spanish angelica, Virginia snake-root, contrayerva-root, zedoary, spikenard, Celtic nard, and saffron, of each one scruple; mace, half a drachm; camphor, opium, of each ten grains. Make all into a fine powder, half a drachm for a dose.

This last is proper for an official medicine; and is very good in all kinds of fevers, where either a diaphoresis or rest is to be encouraged. We have in some of these, as well as those of another form, ordered Gascoign's powder, more for custom sake than any other reason; but have not therefore trusted it except in company with other ingredients of some virtue and efficacy. And these may be given in convenient juleps, as often as the state of a fever requires. If volatile salts are at any time judged necessary to be mixed with them, they ought to be so ordered at the moment of taking, for reasons before given. In intermittents, the cortex may be given by itself, from one scruple to one drachm at a dose; and repeated in the intervals of the fits as often

as required; or where the intervals are not very distinct, it may be joined with some proper alexipharmics: but when they settle in to confirmed agues, the following I have often used with success.

(7.) Take chamomile flowers, myrrh, gentian, bay-berries, of each one drachm; flowers of Benjamin and saffron, of each half a drachm. Make them into a powder, half a drachm for a dose.

Many trust to the chamomile flowers only, with some salt of wormwood; but such do not consider, that the air will fuse the salt, though indeed the medicine will often answer its intention. These ought to be continued some time, and followed close, viz. three or four times in a day; and the patient ought to live upon a warm subastringent diet, and drink strong rough liquors, such as red wine, or old stale beer; and when the disease is once conquered by this means, there is no fear of a return; as there is, after it is put away with the bark only.

Cathartics.

All the dry ingredients, that are in pills or bolus of this class, may be easily preserved in this form; but for examples, we shall farther give a few instances here.

Pulvis Catharticus.

A purging Powder.

(1.) Take resin of jalap, and scammony, of each five grains; cream of tartar, and fine loaf-sugar, of each twenty-five grains; oil of cloves, one drop. Make them into a powder for one dose. Or,

(2.) Take jalap root in fine powder, two scruples; oil of cloves, one drop. Mix them for one dose. Or,

(3.) Take

(3.) Take jalap, one scruple : gamboge, ten grains ; cream of tartar, half a drachm. Mix them for one dose.

There are few of the milder cathartics reducible in this form ; it is most customary to order a proper dose of some of the officinal purging powders, given in the foregoing part, without any mixture. For children, rhubarb and the cornachine powders are the usual purgers.

Sternutatories.

There have been many compositions of medicines under this form, for purging the head by sneezing ; but they now all give place to the powder of asarum leaves, or what at the physical

still the women call assarabacca ; which is an admirable medicine for this purpose : and therefore it is not worth the pains of inserting any thing else here for this use. The common tobacco snuffs are sufficiently in fashion, and want no recommendation to bring them into use, but rather the contrary ; many taking them to great excess. For an ordinary and pleasant cephalic snuff likewise in some particular disorders of the head, especially those attended with vertigoes and faintness, the ordinary sal volatile, diluted small enough to take up the nose, excels every thing ; and has not those inconveniencies in drying and stuffing the nose, as the powdered snuffs have.

S E C T. IX.

Of Glysters, Injections, and Suppositories.

THE first of these was formerly called in to answer many intentions which the present practice has no recourse to, as having contrived more effectual and less troublesome means of cure ; and they are now seldom used but to make a sudden discharge, whereby relief may be sooner had than from the course of an ordinary cathartic ; as in colics, wherein purging glysters are commonly prescribed ; or where the nature of a disease will not admit of the operation of a purge by the stomach, as in acute distempers, and then emollient glysters are ordered to relax the bowels, and just keep the body

open ; and in fluxes and over weakness of the intestines they are now sometimes ordered with cordial restringents, because they more immediately bring the medicine to the seat of the disease than when it is received otherwise ; in all those intentions take the following for examples.

Enema commune.

The common Glyster.

Take of the common glyster decoction, ten ounces ; honey of mercury, two ounces ; common salt, half an ounce ; oil of chamomile, an ounce. Mix for a glyster, to give milk-warm. Or,

Take common glyster decoction, twelve

twelve ounces; pil. cochia the lesser, a drachm, dissolved in syrup of damask roses, an ounce; oil of chamomile, an ounce and a half: oil of aniseeds, half a drachm, or twenty drops. Make all into a glyster.

These are proper, in ordinary cases, to relax the belly, and give two or three stools; and where these would be too ruffling, even milk and sugar may suffice; but in apoplectic and lethargic cases, and also in the dry gripes, and obstinate costiveness with great pain, the following may be more to the purpose.

Enema catharticum.

A purging Glyster.

(1.) Take common glyster decoction, ten ounces; pil. ex duobus, a drachm and a half; syrup of buckthorn, an ounce; oil of juniper, two drachms; of chamomile, an ounce. Mix for a glyster. Or,

(2.) Take common glyster decoction, ten ounces; *vinum benedictum*, two ounces; sal gem. half an ounce; oil of chamomile, an ounce. Mix for a glyster. Or,

(3.) Take common glyster decoction, three ounces; pil. ex duobus, a drachm; *vinum benedictum*, two ounces; sal gem. half an ounce; oil of amber, two drachms; oil of chamomile, an ounce. Mix for a glyster, to be given milk-warm.

It has been controverted more than a little, how high in the intestines glysters may extend their influence; and by all it is agreed, that they get not beyond the valve of the colon, unless the peristaltic motion, with the disposition of that valve, be quite inverted, as in some cases it so manifestly is, that glysters have been thrown up by

vomit; but if it be supposed that they reach no farther than the rectum, it may easily be conceived how they help to fetch down the contents of the whole intestinal tube, by irritating and pulling the fibres of the rectum so forcibly; that they are shook quite to the remotest part; and these strong ones last described are supposed to assist in apoplexies, and other great disorders of the head, not so much by the immediate discharge they make, as by pulling and shaking the whole nervous system, which promotes their natural vibrations, and throws off a great deal of adhesive superfluous humors: in such cases, therefore, glysters cannot well be made too strong, nor can they be too bitter when they are given to destroy worms; the ascarides particularly, which sometimes are very troublesome in the rectum. For an example of such a glyster take the following.

Enema Anthelminthicum.

A Glyster to destroy Worms.

Take colloquintida a drachm and a half, tied up in a rag; savin, rue, of each a handful; boil in a pound of water to half a pound, to which add chemical oil of wormwood, fifteen drops; pil. cochia the lesser, a drachm; syrup of damask roses, an ounce; oil of chamomile, an ounce and half. Mix for a glyster.

But this caution ought generally to be observed, not to be too busy with these for hysterical people; for by proximity and consent of parts it is not possible to give any considerable irritation to the rectum, but the uterus will so far feel it, as to be thrown into strange disorders, which makes glysters in general inconvenient for these people;

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ple; but if any thing necessarily indicates any assistance from hence, use the following; or somewhat like it.

Enema Hystericum.

An Hysteric Glyster.

Take round birthroot root, an ounce; rue, penny-royal, chamomile flowers, of each a handful and a half; boil in a sufficient quantity of water to ten ounces; in which dissolve strained asa foetida, a drachm; oil of amber, two drachms; of chamomile an ounce; and brown sugar, a spoonful or two. Mix for a glyster.

When wind is very troublesome in the bowels, and, by being sometimes pent, occasions colic pains, the following, or somewhat like it, may be of service.

Enema Carminativum.

A Carminative Glyster.

Take chamomile flowers, a handful; bay berries, juniper berries, of each an ounce; sweet fennel, and cummin seed, of each half an ounce; just simmer in a sufficient quantity of water to strain ten ounces; to which add oil of aniseed, two drachms; common salad-oil, an ounce and a half; brown sugar a spoonful. Mix for a glyster.

Enema Hemorrhoidales.

A Glyster for the Piles.

Take galls bruised, three ounces; boil them in a sufficient quantity of spring water to six ounces, and strain it out for a glyster.

This is much extolled by some for what its title expresses. It is to be repeated as there is occasion.

Enema Emolliens.

An Emollient Glyster.

(1.) Take milk, ten ounces; oil

of chamomile, three ounces; pulp of cassia, an ounce. Mix them for a glyster. Or,

(2.) Take thin strained gruel; ten ounces; oil of olives, three ounces; pulp of cassia, an ounce; brown sugar, a spoonful. Make them into a glyster. Or,

(3.) Take fat mutton; veal, or chicken broth, ten ounces; oil of sweet almonds, four ounces; sugar, a spoonful. Mix them for a glyster. Or,

(4.) Take linseed oil, and common oil of chamomile, of each four ounces; oil of turpentine, and aniseed, of each two drachms. Mix them for a glyster.

These are proper in all bilious and convulsive colics; and because the latter often happen from the gravel or stone, by consent of parts. With lenients are also sometimes given such things as are supposed to reach even the seat of the disorder immediately, besides what they do by relaxing; by consent, all the parts near which they are injected, which is common to them with all other glysters; for examples hereof take the following.

Enema Terebinthinatum.

A Turpentine Glyster.

(1.) Take Venice turpentine; an ounce; grind it with the yolk of an egg, and then mix it with ten ounces of common decoction for glysters, and add to it oil of juniper, two drachms; oil of turpentine, a drachm; syrup of marshmallows, two ounces; and coarse brown sugar, an ounce. Mix them for a glyster. Or,

(2.) Take Venice turpentine, half an ounce: by the help of yolk of egg mix it with eight ounces of milk; to which add linseed oil,

three ounces; syrup of marshmallows, two ounces; oil of turpentine, and aniseed, of each two drachms; brown sugar, a spoonful, or an ounce. Mix them for a glyster. Or,

(3.) Take balsam capivi, two drachms; mix it with the yolk of an egg, and dissolve it by degrees with eight ounces of common decoction, in which has been boiled to solution, half an ounce of Castile soap; to which add common oil of chamomile, two ounces; oil of juniper, and aniseed, of each a drachm and half; brown sugar, an ounce. Mix them for a glyster.

But besides evacuating and softening the bowels by this means, there is an intention of great moment, which is conveniently assisted this way, and that is strengthening and astringing them in long and obstinate diarrhœas and dysenteries.

Enema Balsamicum.

A Healing Glyster.

(1.) Take the broth made of a sheep's inwards, or of the head chopped to pieces, ten ounces; yolk of egg N^o 2; sheep's suet, two ounces; Lucatellus's balsam, half an ounce. Mix for a glyster, and give it warm enough for the suet to remain melted. Or,

(2.) Take very strong broth made of a sheep's head, ten ounces; diascordium, half an ounce; yolk of two eggs; bees-wax, an ounce. Mix for a glyster, to be given pretty warm.

These will greatly heal, and as it were plaster over the bowels, after being made raw by long fluxes; and where the bowels are very much relaxed, the glysters may be made much more restraining. Thus,

Enema de Amylo.

Starch Glyster.

Take of jelly of starch, four ounces; linseed oil, half an ounce; melt the jelly over a gentle fire; then add the oil, and occasionally may be added of liquid of laudanum, 30 or 40 drops.

In case of a tenesmus, or a dysentery, when the mucous is abraded from the bowels occasioning pain and soreness, this glyster may be administered with considerable advantage.

Enema Refringens.

A Restraining Glyster.

(3.) Take diascordium made without honey, half an ounce; dissolve it with the yolks of two eggs in the white hartshorn-drink, eight ounces, and mix for a glyster. Or,

(4.) Take balaustines, and red rose leaves, of each half an ounce; pomegranate peels, an ounce; burnt hartshorn two ounces; boil them in strong mutton broth fourteen ounces to eight; in which dissolve diascordium, made without honey, half an ounce, and the yolks of two eggs; and mix for a glyster. Or,

(5.) Take strong sheep's-head broth, six ounces; powder of cinnamon, a drachm; of Japan-earth, half a drachm; the yolks of two eggs; mix them for a glyster. Or,

(6.) Take of the white drink, six ounces; diascordium, half an ounce; Venice-treacle, and bole Armeniac, of each two drachms; mix for a glyster.

The things contrived for this intention ought always to be in a little quantity, because they will thus remain the longer, whereas a greater would sooner occasion their discharge; they ought likewise to be given

given chiefly just before going to bed, that by sleeping upon them they may be retained, if possible, till morning, or as long as can be. Whether a person may in some extraordinary injuries in the stomach, or the first passages, receive their nourishment this way, because such cases very seldom happen, though the history of physic confirm to us many instances of success in this practice; and it is not strange, because there are many lacteals within the reach of glysters, though they are not here so plentiful as in the small guts: how a cordial can be supplied this way too, is not to our purpose, because there can be no necessity so to supply it. But for such uncommon cases as may require glysters warmer, and more narcotic than any of the former, take the following for examples.

Enema Anodynum.

An Anodyne Glyster.

(1.) Take diascordium without honey, half an ounce; the yolks of two new laid eggs; canary, six ounces; liquid laudanum, forty drops; mix them for a glyster.
Or,

(2.) Take henbane and white poppy-seed, of each half an ounce; balauſtines and red roses, of each half a handful; boil in smith's-forge water, a pound to half a pound; strain, and add Mithridate, three drachms; spirit of cinnamon, an ounce; mix.

Or, (3.) Take Venice-treacle, two drachms; the yolk of an egg; mix them with canary, half a pound; and give it for a glyster.
Or,

(4.) Take conserve of red roses, an ounce; diascordium without honey, two drachms; simmer them

in Canary, six ounces; and spirit of cinnamon, two ounces; strain, and mix the liquor with the yolk of an egg; and give it for a glyster.

Oils and slippery things are all improper for glysters of this kind, because they make the parts too lax to retain them long enough to be of any considerable service; in some long obstinate diarrhœas these may be continued every night for some weeks together; and if a suitable diet and way of living be conformed to at the same time, a great deal of service may be done, especially if now and then a dose of ipecacuanha be given, which may astringe the stomach, promote a better digestion, and cut off a supply of such humors as irritate the bowels, and sollicit their evacuation oftener than nature requires.

There is another purpose for which glysters are given, viz. when the bark is absolutely necessary, and a patient through prejudice or obstinacy cannot take it any other way, which is often the case in young children; for we have many instances of its success in glysters; and for the manner of giving it so, take the following example.

Enema Febrifugum.

A Febrifuge Glyster.

Take Peruvian bark in powder, an ounce; boil it in a sufficient quantity of three or four different waters, to make all, when put together, half a pound, to which add Fracastorius's confection without honey, half an ounce, and give it for a glyster.

This may be made stronger or weaker, and be in a greater or lesser quantity, according to the age and strength of the patient; what

stands here is sufficient for a middle constitution full grown, and is proportionably to be lessened for those of fewer years; the manner is to give them as soon as a fit is off, and repeat them after every stool; or, if they come not away, three or four may be repeated in a day. Dr. Helvetius of Paris is the person who has given most credit to this practice, and there is no fear of its succeeding if it be carefully managed; but he gave the powder itself in common water warm, though we take boiling it to be better, when it need not be strained out; if it be finely powdered and well boiled, they may be checked with astringents and opiates, as the patient is more or less disposed to a laxity; for if they continue not in the bowels, but come again soon away, they will do little good.

Injections are a form of medicine used for a more immediate conveyance to the affected part, than by the common course of circulation it would be supposed to arrive, as into the ears, penis, or uterus; and this is done by a syringe or glisten-pipe, as they best suit the part to be injected; for those into the uterus, the syringes made to give glysters with are the most convenient; or where the patients are their own operators, a common glyster-pipe.

Injectio Auricularis.

An Injection for the Ears.

(1.) Take rosemary-water, a pound; Hungary water, an ounce; common honey, two ounces; mix them together for an injection. Or,

(2.) Take white wine, a pound; Hungary-water, half an ounce; honey, two ounces; mix them for an injection.

These are used to syringe the ears with, in order to wash out the wax that hardens there, and obstructs the hearing; care must be had that it be not thrown in too forcibly, for fear of injuring the membranes, which are extremely fine, especially the tympanum; and it is to be done with a short-piped syringe made on purpose for such uses, and the liquor should be moderately warm; but that this may be done with the more success, somewhat like the following is to be dropt into the ears every night going to bed for some nights together, and kept in with a little cotton or wool, which also by its warmth assists the operation.

Take oil of bitter almonds, a drachm; of amber, of rosemary, and of marjoram, of each a drop; mix them together, and intill two or three drops into each ear, or that most affected, every night, till the cause ceases.

Injectio ad Gonorrhœam.

An Injection for a Gonorrhœa.

(1.) Take Rhasis's white troches, three drachms; camphor, a scruple; dissolve them in spring water twelve ounces. for an injection.

This injected into the urethra, two or three times a day, will allay the pain and heat which is caused by the urine and sharpness of matter discharged by a venereal ulcer, and help to dry and heal it; but if it be an excoriation only from a hot sandy urine, the following is better.

Take marshmallow-root and whole linseed, of each two drachms; boil them in a pound of water till it grows soft, and almost as thick as a syrup; then strain it, and use it for an injection.

This

This admirably cools and lubricates the urethra, and even in a gonorrhœa it will greatly defend the part against the erosion of purulent matter, and prevent a cord-dee. Or,

(3.) Take Venice-turpentine, two drachms; mix it with a sufficient quantity of the yolk of eggs, to incorporate with linseed oil, an ounce; and by degrees mix it with barley water, a pound; for an injection.

This is an excellent medicine even taken inwardly in any gonorrhœa; but if injected, it will soon cleanse and heal up with safety any ulceration, from whence the matter runs, if used two or three times a-day.

Injectio Uterina.

An Injection for the Womb.

(1.) Take Rhasis's white troches, two drachms; sugar of lead, a scruple; dissolve them in barley-water, in which has been boiled a handful; of red-rose leaves, a pound; and make an injection. Or,

(2.) Take Roman vitriol, two drachms; bole, an ounce; boil them in smith's forge-water, two pounds to one; when cold filter it, or let it settle fine by standing, for an injection.

The uterus is subject to a great many ails from weakness, and thereby are occasioned ouzings and defluxions of humors, which are very troublesome, and sometimes there is a continual bleeding, especially if the glands grow cancerous, as they do in many scrophulous constitutions, particularly some time after child-bearing, and the flowing of the menses is over; in all such cases therefore much help may be had from hence, and according to the degree of relaxa-

tion, or aggravation of the symptoms, they may be made more or less restraining, and be injected once a day, as there shall be occasion; though as to those bleedings which come some years after the stoppage of the menses, we have the authority of Hippocrates that they are fatal; but when they happen after hard labour or difficult miscarriages, they are to be remedied by such things as restringe and restore the uterus to its natural tone; and in weaknesses sometimes merely from such causes, the following may perhaps be yet more suitable.

Injectio.—Another—

(3.) Take red wine mulled with spice as usual, a sufficient quantity; inject it milk-warm, or sit over the steam of it hot, so that it may be received by those parts. Or,

(4.) Take mint, red-rose leaves, and fanicle, of each a handful; cinnamon and pimento, of each two drachms; boil them in a pound of water to half a pound; then add a pound of red wine; and, after a little simmering together, strain out the liquor for an injection, to be used just warm, or to sit over its steam, when quite hot, without straining it.

Suppositories are used either when a person cannot be put into a suitable posture of body to receive a glyster, or when a glyster is not likely to be retained long enough to be of any service, either through weakness, or want of knowledge to hold it, as in children, and persons not sensible in acute distempers; and they are likewise much less troublesome, when only a stool is wanted.

(1.) Take sal gem. six drachms; boil it to such a consistence, as will

roll up into a convenient bigness and shape to thrust up the fundament. Or,

(2.) Take sal gem. and hiera picra, of each half a drachm; honey, enough to make a suppository, to be used as the other.

There are many to be contrived somewhat different from these;

and some use a bit of the aleopha-gine pill, or the extract of Rutilus; and for children most commonly what the confectioners sell by the name of a violet comfit; they are first to be dipt in oil, or just rubbed over with a little butter, to ease their passage.

S E C T. X.

Of Gargles, Lotions, and Collyriums.

THE first of these are used chiefly either to cool and cleanse the mouth from phlegm, and then are acrid and subastringent; or to soften and heal it when sore and parched, and then are smooth and mucilaginous; there are in writings of this kind many under this division for other purposes, but as the present practice rejects them, and because those intentions are better answered by other means, we shall not take up any room with them here.

Gargarisma detergens.

A detergent Gargle.

(1.) Take spring-water, six ounces; rose-water, two ounces; syrup of mulberries, an ounce and half; oil of vitriol, fifteen drops, or enough to make it agreeably acid. Or,

(2.) Take verjuice, half a pound; syrup of raspberries, two ounces. Or,

(3.) Take spring-water, half a pound; rose water, two ounces; whites of two eggs beaten fluid; *sal prunel.* two drachms; syrup of mulberries, two ounces. Or,

(4.) Take elm-bark, an ounce; boil it in a pound of water to half a pound; to the strained liquor add syrup of mulberries, two ounces; spirit of vitriol, what is sufficient. Or,

(5.) Take tincture of roses (to be described hereafter) well acidulated, half a pound.

Gargarisma Astringens.

Astringent Gargarism.

Take of oak-bark, one ounce; alum, one drachm; honey of roses, one ounce; water, a pint and a half. Boil the water with the oak bark until half a pint is consumed; then strain off the liquor and add the honey and the alum.

Gargarisms, or gargles, are used to wash the mouth and fauces; the first kind where ulcerations require to be deterged, or the excretion of thick viscid saliva promoted; the second sort where the mouth is dry, parched, and rigid, to moisten and soften it; and the third, when the parts are extremely relaxed, and the gums are spongy.

The

The common gargles do little service in inflammatory quinseys. Those of an acid nature, by contracting the mouths of the emunctories and thickening the humors, do more harm than good; but a decoction of figs in milk and water, with two drachms of spirit of sal ammoniac added to each pint when strained off and almost cool, promotes an excretion from the salivary glands, and greatly conduces to a cure.

Gargarisma emolliens.

An emollient Gargle.

(1.) Take roots of marshmallows, liquorice, and pearl-barley, of each an ounce; gum arabic, half an ounce; figs, N^o 8; boil them in three pounds of water to a pound and a half; and to the strained liquor add syrup of marshmallows, three ounces.

Or, (2.) Take quince-seeds, two drachms; beat them in a mortar, and draw out their mucilaginous substances, as in making emulsions, with half a pound of spring water; rose-water, two ounces; and put to it syrup of mulberries, three ounces. Or,

(3.) Take linseed, half an ounce; boil it in a pint of water till it is smooth, and almost as thick as a syrup; then strain the liquor, and put to it syrup of mulberries, two ounces, for a gargle.

Lotions are such as, strictly speaking, concern beautifying the skin, by cleansing it of those deformities which a distempered blood sometimes throws upon it, or rather are made by a preternatural secretion; for generally those distempers of the skin, commonly accounted signs of a foul blood, are from those salts which are natural in the best constitution, thrown off

by the cutaneous glands, which ought to be washed away through the kidneys; so that instead of those insignificant and ridiculous tribes of sweetners, which in this case are frequently used, promoting the urinary discharge, or rectifying that of the skin by proper washes, frictions, or ointments, or both together, is the only way to get rid of such disorders; under this division we shall therefore only give some examples of what is proper for this purpose, though many mix here with such as are more suitable for fermentation, to which head we refer them.

Lotio Repellens.

A Repelling Lotion.

(1.) Take litharge of gold, four ounces: white-wine-vinegar, half a pound; digest them together three days, stirring it often, and then filter for use. Or,

(2.) Take alum, half an ounce; boil it till dissolved in juice of lemons, a pound. Or,

(3.) Take ceruse, half a pound; white-wine vinegar and elder-flower water, of each a pound and half; boil a pound away, and then let it settle fine for use. Or,

(4.) Take spirit of wine, half a pound; sugar of lead, a drachm; which dissolve in it. Or,

(5.) Take litharge, an ounce; vinegar, six ounces; boil to the evaporation of a third; then put to it alum and salt, of each half an ounce; rose-water, half a pound; and after one boiling more let it settle fine, and pour it off for use.

In tetterous eruptions and pimples, which with heat are apt to break out upon the skin, any of these are good to repel them; but this is to be always understood to be proper only when a person is

otherwise well, because in any critical breakings-out they are by no means to be drove back, but encouraged, else a great deal of mischief may be done: in such washes too it is to be observed, that they cannot be used but for the face, and some particular parts, because, so far as they are so used, they cannot but in some measure abate the natural perspiration, which will be attended with inconvenience. There are some yet more repelling, but then their use is liable to more mischiefs, if due care be not taken; when therefore any thing of this kind is used, a person must always regard that some other emunctory may be in readiness to discharge what is lessened by the application of this medicine; and that which is most suited to compensate for what the skin is deficient in, is that by urine; wherefore diuretics are certain auxiliaries to cosmetics, and it is hardly safe to use one without the other. For what yet more expels, take either of the following.

(6.) Take common white vitriol, an ounce; crude alum, two drachms; boil them in twelve ounces of spring water to eight ounces; take off the scum and put the liquor up for use.

This must be boiled in an iron vessel, because it is so penetrating as to run through any other: it will keep a long time, and may be diluted with rose-water; so as to make a good collyrium. Or,

(7.) Take white vitriol, a drachm; sugar of lead, half a drachm; dissolve both in rose-water, four ounces; and they will make it milky. Or,

(8) Take camphor rubbed small in a mortar, two drachms; put to it, by a little at a time, juice of

lemons, an ounce; when it is dissolved, add white wine, a pound; or spirit of wine and rose-water, of each half a pound.

This last is a very good lotion for all spoils or redness of the face, and may be freely used without fear of mischief, which cannot be said of the mercurial lotions, tho' that mischief is of another kind than the foregoing; but, because some will venture their health for the amendment of a complexion, the following is as safe as any of that tribe.

(9.) Take white sublimate, an ounce; put it into a pewter-pot, with water, three pounds; let it stand twenty-four hours, stirring it sometimes with a stick till it looks blackish; then filter through cap-paper for use.

Lotio Oleosa.

An Oily Lotion.

(10.) Take oil of tartar *per deliquium*, an ounce; oil of sweet almonds, two drachms; rose-water, four ounces; shake them together. Or,

(11.) Take almond milk, (*i. e.*) an emulsion with blanched almonds), four ounces; sugar of lead, ten grains; white vitriol, a scruple; oil of tartar, two grains.

These smooth and soften the skin, at the same time as they deterge or repel the humors which deform it; and they may be used at pleasure, chiefly to cleanse away freckles and morpew.

Collyriums are medicines suited to the eyes, tho' they might as well pass under the general appellation of lotions; and of these there are none to any good purpose, but to cool and repel hot sharp humors; and therefore most of the preceding being diluted, are proper; and

and they likewise more effectually answer their end if they be assisted by the inward use of diuretics at the same time.

(1.) Take Rhafis's white troches, a drachm; rose water, two ounces.

Or, (2.) Take calamine levigated, half a drachm; rose-water, two ounces. Or,

(3.) Take tutty levigated, half a drachm; rose water, two ounces.

Or,

(4.) Take white vitriol, and sugar of lead, of each five grains; rose-water, two ounces.

With any of these the eyes may be washed at discretion, in all hot defluxions; but when the sight decays, from a dryness or default of the optic nerves, such things can avail but little.

S E C T. XI.

Of Embrocations, Fomentations, and Baths.

BY the first of these is meant somewhat to be transmitted into the skin, either to attenuate or dislodge something obstructed underneath, to ease pain, or to irritate the part into more warmth, and a greater sense of feeling; or to abate inflammation. Of the first kind are the following.

Take wood-ashes, two ounces; strong white-wine vinegar, eight ounces; digest them together, so as to make a lixivium, which filter for use. Or,

Take oil of tartar *per deliquium*, one ounce; spirit of sal ammoniac, two drachms; spirit of wine, eight ounces. Mix for use.

Either of these rubbed upon any part stuffed with cold humors, will help to thin them, as to dispose them either for transpiration, or to be taken back by the reflux blood; but in sanguine inflammatory swellings, such things are not so safely meddled with. In tumors attended with great pains, as in the rheumatism and the gout, the following may be of use.

Take spirit *v. r.* six ounces;

spirit of scurvy-grass, two ounces; spirit of sal ammoniac, half an ounce; Venice soap scraped thin, one ounce; camphor, six drachms; opium, one drachm; saffron, half a drachm; digest all together, shaking it now and then for three or four days; then let it settle clear for use. Or,

Take Venice soap, one ounce; camphor, two drachms; opium, one drachm and a half; digest in spirit of wine, half a pound for three days, and pour off for use.

These are powerfully penetrating and anodyne: and therefore in rheumatic and arthritic swellings, they not only do a great deal in dislodging the humors, and drawing them out by sweat and transpiration; but also give ease and relaxation to the irritated fibres at the same time.

For paralytic numbnesses, and to quicken the vibrations of the fibres, and motions of the nervous fluids, the following may be of service, if well rubbed into the parts with a warm hand or cloth.

Take

Take Hungary water, one ounce; spirit of lavender, and spirit of saffron, of each two drachms; apoplectic balsam, one scruple; oil of cloves, ten drops: shake them all well together. Or,

Take camphorated spirit of wine, eight ounces; Venice treacle, one ounce; oil of cloves, and marjoram, of each fifteen drops; digest together for three or four days, and then pour it off for use. Or,

Take spirit of wine, four ounces; distilled vinegar, and Hungary water, of each one ounce; oil of cloves, ten drops. Mix them together for use.

Take of crude sal ammoniac, a drachm; white-wine vinegar, two ounces; mix. This, or mixed with from equal parts, to three times its quantity of water, as circumstances require, may be used in cases of gangrene, or mortification in the external parts. It stimulates and excites such a degree of irritation, upon the surface, as, with the use of internal medicines, will produce the wished-for inflammation.

Take the sugar of lead, half an ounce; dissolve it in four ounces of strong vinegar, and add to it two pints of distilled water. This preparation is given by Mr. Bell, of Edinburgh, in his treatise on ulcers, as a useful general saturnine preparation. The addition of vinegar he observes, both dissolves the sugar of lead more perfectly, and also keeps it suspended. It is useful in general, where Goulard's extract of lead is advised. In cases of external inflammation, if the part is too tender to support a poultice, apply this embrocation by means of soft rags dipped into it, and renew it so as to keep the part constantly

moist; when it is mixed with crumb of bread into a poultice, the moisture is more equally and constantly preserved.

Fomentations differ in little else from the former, than that they are made mostly with aqueous menstruums, are more extensive in their manner of application and operation, and are assisted by actual heat, and hot woollen cloths; and when they are general, they are called baths.

Fotus Arthriticus.

A Fomentation for the Gout.

(1.) Take sage, rosemary, chamomile, mugwort, St. John's wort, and common wormwood, of each six handfuls; bay-salt, three handfuls; water, three cong. boil to two cong. and strain out for a fomentation.

This is of service to the part affected, by breathing it, and giving more room for the offending matter to perspire; which is the most natural outlet for it; and almost the only one it can be diverted by. It must be used hot once or twice in a-day.

(2.) Take oil of vitriol rectified, and rectified spirit of wine, of each equal parts. Mix them very gradually together, and let them stand in a moderate warmth ten days.

This is a very sharp medicine, and will endanger excoriation; and therefore is not much to be encouraged; besides, it is from things of this kind, that the gouty matter is apt to be repelled, and thrown back upon some of the principal viscera, sometimes to the immediate danger of life. But from such warm fomentations as the foregoing, there is no such danger; from the following.

(3) Take ground-pine, south-ern-wood, of each four handfuls; boil them in six pounds of water to four pounds; in the strained liquor dissolve salt of tartar, sal ammoniac, of each two ounces.

This is warm and strengthening, and therefore will not only breathe the parts it is applied to, but render them able to resist fresh attacks. Use it once, if not twice in a day, hot.

Fotus Scorbuticus.

A Fomentation against the Scurvy.

Take ground-pine, and henbane, of each two handfuls; winter's cinnamon, half an ounce; horse-radish-root, and earth-worms, added at last, of each two ounces; boil in lime-water, three pounds to two pounds; and to the straining add spirit of scurvy-grass, two ounces; and opium, one drachm.

This will help to chase away scorbutic and erratic pains; where inward remedies cannot prevail, or be complied with.

Fotus Spleneticus.

A Fomentation against the Spleen.

Take dried tobacco leaves, one ounce; infuse them in warm water, four pounds, for two hours; and in the strained liquor, dissolve gum ammoniacum, half an ounce.

The region of the spleen must be fomented with it extremely hot; and it will give ease, and dis-cuss troublesome flatulencies.

Fotus Carminativus.

A Carminative Fomentation.

Take chamomile-flowers, two ounces; juniper, and bay-berries, of each one ounce; crude sal ammoniac, half an ounce; boil in six pounds to four pounds, adding at last seeds of sweet fennel, caraway,

cummin, and anise bruised, of each half an ounce; and to the strained liquor add common spirit of wine, one pound.

This may be of service in any kind of colic, but is most useful and necessary when the patient is so excessively costive that nothing will operate; and the belly is swelled and hard like a drum; for it will soften the membranes, and give liberty for the pent up vapours to transpire. It may be used very warm, and some emollient liniment also may not be amiss.

Fotus Emolliens.

An Emollient Fomentation.

Take marshmallow roots, white-poppy-heads, of each two ounces; seeds of flax, fœnugreek, cummin, bay berries, of each one ounce; mallows, feverfew, of each three handfuls; chamomile-flowers, two handfuls; boil in one cong. of water to four pounds.

Or, Take roots of marshmallows, and white lilies, of each one ounce and a half; leaves of mallows, pellitory, henbane, flowers of elder, chamomile, and melilot, of each one handful; seeds of flax and fœnugreek, of each six drachms; boil in six pounds of water to four pounds.

These soften and discuss all hard windy swellings, and suddenly give ease to the pain occasioned thereby; and will frequently provoke urine in the stone colic, by the relaxing and opening those vessels which were constricted, and drawn up with violent pain; to which end the following is on purpose contrived.

Fotus Diureticus.

A Diuretic Fomentation.

Take smallage-roots, four ounces; roots of fennel, and linseed, of each two

two ounces; leaves of pellitory of the wall, mallows, arsmart, and chamomile flowers, of each two handfuls; boil in six pounds of water to four pounds; and in the strained liquor dissolve crude sal ammoniac, half an ounce; common soap two ounces, and mix all together.

This not only is emollient and discutient, but carries somewhat also so penetrating along with it, as to be a means of opening obstructions upon a double account; *viz.* by widening the passages, and dividing the humors thin enough to get through.

Fotus Erysipelatosus.

A Fomentation against the St. Anthony's Fire.

Take the green tops of flowers, or in the winter time, when those cannot be had, the inner bark of elder, four handfuls; boil it in six pounds of water to four pounds; and in the strained liquor dissolve soap, one ounce.

This will wonderfully break that visciditv which obstructs the capillary vessels, and at the same time so relax the membranes, as to give vent to the included humors, and draw them out by transpiration: it would be of use also with an emollient liniment, to soften the skin, if much stretched.

Fotus contra Hydropem.

A Fomentation against the Dropsy.

Take salt petre, two ounces; crude sal ammoniac, one ounce; and dissolve them in spirit of wine and water, of each one pound, by a gentle heat.

This is recommended to thin and fizy serum in the lower belly, that makes a tympany; and help it off by its proper vessels, or by

transpiration, through the substance of the parts.

Fotus Pacificus.

A Pacific Fomentation.

Take lettuce, houseleek, and orrel, of each two handfuls; white lily-flowers, and red-roses, of each one handful; white poppy-heads, with the seeds, two ounces; boil them in one cong. of water to four pounds; and in the strained liquor dissolve opium, two drachms.

Or, Take white poppy-heads, with their seeds, cut and bruised, and dill-seeds, of each two ounces; leaves of henbane, night-shade, and lettuce, of each two handfuls; boil them in six pounds of water to four pounds.

These are both good to assuage pain in inflammatory swellings; but such things require great skill, because they else may do much mischief, by disposing to mortification, and destroying the natural heat of the part they are applied to.

Fotus Astringens.

An Astringent Fomentation.

Take oak-bark, two ounces; balaustines, and red-roses dried, of each one handful; boil them in water, four pounds to two pounds; strain and add rough red wine, half a pound. To these may be also added alum, two drachms, or half an ounce.

Fotus Sanguinem fissens.

A Fomentation to stop Bleeding.

Take strong white-wine vinegar, one pound; dissolve in it, over the fire, salt-petre, one ounce; and camphor, one drachm.

This is reported to be very effectual in stopping of blood from the

the nose, if applied cold to the breast; for there is in it a penetrating chilliness, which may so very soon reach the heart itself, as to slacken or retard its compressive force, by which the blood will cease to flow with such swiftness to the extreme parts. This is also said to cure a drunken fit, by applying it to the pubes and testicles. But the manner of operation, to such a purpose, does not come within our compass of reasoning in such matters; and it will seldom be thought worth trying in such cases.

Fotus Hæmorrhoidalis.

A Fomentation for the Hæmorrhoids.

Take hounds-tongue, plantane, yarrow, elder-leaves, of each four handfuls; pomegranate-peels, one ounce; boil them in water and rough red wine, of each three pounds to four pounds. In the strained liquor dissolve alum, half an ounce; and sugar of lead, two drachms.

This not only checks the inordinate bleeding of the hæmorrhoidal veins, but also an immoderate flux of the menses; but the following is most serviceable in the dry piles.

Take onions and linseed, of each four ounces; henbane, nightshade, yarrow, and houseleek, of each two handfuls; boil them in one cong. of water to four pounds; and in the strained liquor dissolve of the best opium, two drachms.

Where there is much heat and pain, if the part be bathed with this pretty warm, it will soon give ease: and so supple and relax it, as to breathe out a great deal of

ill humours by transpiration, and leave it soft and easy.

Fotus Corroborans.

A Strengthening Fomentation.

Take shavings of saffras and guaiacum, of each one ounce: boil them in four pounds of water, to three pounds. To the strained liquor add mother of thyme, marjoram, rosemary, lavender, of each one handful; mustard-seed, half an ounce; nutmeg, mace, of each one drachm and a half; cloves, one drachm. Infuse hot and close for two hours, and then strain it: and as it is used, drop in the spirit of sal ammoniac, as much as is sufficient to make it quick.

This is good to foment any sprained limb, or that is paralytic; and may also be used to the head with success in any disorders from too much moisture and pituitous defluxions.

Fotus Stomachicus.

A Stomachic Fomentation.

Take rough red wine, one pound; brandy, wine-vinegar, of each half a pound; dried mint, and worm-wood, of each half a handful; bistort-root, half an ounce; pomegranate-peels, two drachms; cloves, mace, nutmeg, cinnamon, of each one drachm; Venice treacle, half an ounce; macerate close for two hours, then strain out hard for use.

This used hot to the stomach, or belly, will be found of admirable service for relaxed weak stomachs that are subject to distension from wind; and will help to check immoderate vomiting, when nothing can be retained long enough to take effect that is given inwardly;

inwardly; as likewise in a diarrhoea.

Fotus Discuticus communis.

The common Discutient Fomentation.

Take St. John's-wort, common wormwood, and centaury, of each one handful; bay berries, two ounces; chamomile and elder flowers, of each half a handful; boil them in three pounds of water to two pounds; and to the strained liquor put common spirit of wine, half a pound; and mix for use.

This is the usual fomentation now amongst our surgeons, to ease and draw off the humors from any part; either by transpiration, or by thinning them enough to be washed back into the common current by the reflux blood. But where there is any apprehension of a mortification, the following is preferred.

Fotus. — Another. —

Take common wormwood, two handfuls; St. John's-wort, centaury, and chamomile-flowers, of each one handful; bay-berries, four ounces; common ashes, half a pound; boil in four pounds of water to two pounds; and to the strained liquor add spirit of wine, half a pound; and spirit of sal ammoniac, just when it is used, enough to make it quick.

In gross hydropic habits, it is a difficult matter to cure the least hurt in the legs, without such helps; because there is such coldness of blood, and a flux of hu-

mors upon the part, that it will continually keep open, unless they be warmed and drawn away in steam by such penetrating hot fomentations; which also prevent that disposition to mortification; whereto the flesh of such persons is subject.

Fotus Anthelminthicus.

A Fomentation against the Worms.

Take common wormwood, lavender-cotton, tansy, favin, of each one handful; bears-foot, half a handful; colocynth and aloes, of each one drachm; boil them all together in three pounds of water to two pounds, and strain out for use.

When children are troubled with worms, and will not be prevailed upon to take what is necessary inwardly, which often happens, such kind of fomentations, even by their bitter offensive steams which they send through into the belly, so disturb those ugly inhabitants, that they are, by this means, frequently forced away by stool.

Baths differ not from fomentations, except in the manner of using; these being partial, and those for the whole body. Whatsoever cases therefore may be judged relievable by such means, a bath may be easily contrived after any of these examples, by proportioning the ingredients to as much as is sufficient of liquor; and suiting them as conveniently as can be to the intention in view.

S E C T. XII.

Of Oils, Liniments, and Plasters.

THES E are much less frequent in the present practice than heretofore ; because they are found both disagreeable to patients of any delicacy, and not of any great efficacy in cases of moment. A few examples therefore of each will here suffice.

Oleum Cosmeticum.

A Beautifying Oil.

Take oil of bitter almonds, four ounces ; oil of tartar *per deliquium*, two ounces ; and oil of rhodium, six drops ; shake all well together till thoroughly mixed.

This is much like the oily lotion in Sect. 10. but is something more softening, and makes the skin admirably smooth, as well as white, and frees it from specks and pimples.

Oleum Cremoris.

Oil of Cream.

Take the inner green bark of elder, fresh gathered, three handfuls ; the best cream, two pounds ; boil them well together till the cream turns to an oil ; and boil it over again with fresh bark.

It is recommended as the best of remedies against the piles, and all hot inflammatory tumors, which it both cools and breathes out by transpiration at the same time.

Oleum Acousticum.

Oil to help Hearing.

Take oil of bitter almonds, one drachm ; oil of nutmeg, cummin,

marjoram, and amber, of each two drops ; civet, two grains. Mix them well together.

This is to drop into the ears every night, keeping them stopp'd warm with wool or cotton. It helps to soften and break away the wax that fills up the passage to the tympanum : and fits it to be brought away easier by syringing.

Oleum Cephalicum.

A Cephalic Oil.

Take balsam of Peru, one drachm ; oil of sage, rosemary, marjoram, and nutmeg, of each four drops ; camphor, fifteen grains. Mix all together smooth.

This is directed to rub the temples, nostrils, and palms of the hands with, in any nervous cases ; especially such as are tending to the comatous, lethargic, or paralytic.

Oleum Paralyticum.

Paralytic Oil.

Take oil of amber, and saffron, of each one drachm, of rosemary, marjoram, and origany, of each one scruple ; of cloves, nutmegs, and pepper, of each fifteen drops. Mix, *f. a.*

This is more particularly calculated for the palsy ; and may be used as the former ; but principally rubbed into the part more immediately affected ; and it will assist fomentations of the same intention, by applying it as soon as they are over.

Oleum seu Balsamum viride.

The green Oil or Balsam.

Take linseed oil, a pound; fine verdegrise, four drachms; boil them together till the verdegrise is dissolved.

This is much used in contused and lacerated wounds; and likewise in gun-shot wounds; and sometimes also in foul ulcers; it being considerably detergent, and will not suffer a part to incarn too soon.

Linimentum Crinificum.

A Liniment to make the Hair grow.

Take gum labdanum, six drachms; bears grease, two ounces; honey, half an ounce; southernwood powdered, three drachms; oil of nutmeg, a drachm; balsam of Peru, two drachms. Mix, *f. a.*

This is recommended for those places which are bald, but they are first ordered to be rubbed with an onion till very red, and then to be done over with this, which is to be repeated two or three times in a day for three months.

Linimentum Depilatorium.

A Liniment to take off Hair.

Take quick-lime, four ounces; auripigment, an ounce and half; root of orris, an ounce; nitre and sulphur, of each half an ounce; strong soap-lees, two pounds: mix, and boil them to a consistence, and then add oil of cloves, twenty drops, and mix all well together.

This is rather a cataplasim than a liniment or ointment (which differ in nothing material, more than that liniment is the nearer term), and if it is not used with great caution, it will do mischief, and make an eschar upon the part; half an hour is enough for it to lie

at a time; and after it is taken off; rub the part with any common oil; and after the foreness it occasions is over, apply it afresh, and so continue till it has eat to the very roots of the hair, and made it all shed off. The common depilatorics used in France, Italy, &c. seem preparations of this kind; but they are not suffered to lie upon the part above a minute or two, the operator trying in the mean time whether the hair will come off with a gentle stroke of the finger; and after all is scraped off, they are very careful to wash the part well with warm water.

Linimentum Ophthalmicum.

A Liniment for the Eyes.

Take fresh butter, without any salt, four ounces; white wax, an ounce; tutty prepared, half an ounce; camphor, two scruples; make them into a liniment, *f. a.*

This is a very good medicine for sore inflamed eyes, and may be used with the utmost safety, which cannot be said of many things ordered for such purposes; they may be just stroaked with it two or three times a day; the finer the tutty is levigated it is much the better; if the eyes are blood-shot, some of it may be mixed with as much conserve of red roses, and spread upon a cloth, and tied on all night.

Linimentum Cephalicum.

Take oil of nutmegs by expression, and palm-oil, of each a drachm and a half; chemical oil of cloves, rosemary and sage, of each a scruple; mix them together smooth, *f. a.*

Linimentum Paralyticum.

A Liniment for the Palsy.

Take of the foldiers ointment (described Part II. Book IV. § 10.)

two

two ounces; oil of spike, of amber, of each three drachms; powder of euphorbium, a scruple; oil of rosemary, a drachm and a half.

These are pretty much contrived like the oils just before under the same titles, and they are to be used in the same manner, which see. Dr. Fuller very justly distinguishes in the use of these things between a palsy in any particular part obstructed by a viscid and too heavy nervous juice, and from a want of fluid through some disorder above in the organ; and though he generally expresses himself in a manner very particular, yet he is well worth transcribing here. He says, these things remove dams and obstacles in the nerves, stopt up with viscid juice, redintegrate the wonted radiation of the spirits, bring the slack fibres into order, and recover their tonic motion, exagitate the blood, and give it a rapid motion through the part, and so resuscitate natural heat, sense, and motion: but here it is heedfully to be observed, that sometimes the paralytic part, by the ill use of externals too intensely hot, shrinks up and withers, to the irretrievable damage of the patient; and this happens most, when the temperament is hot, and the cause of the resolution not in the relaxed part itself, but in the brain, or some member at a distance, whence the part, which is found enough of itself, and rightly conformed, suffers by way of eclipse, being deprived of the rays of the spirits; for in that case, if such heating and drying things be administered as are immoderate, and beyond what the temper of the part can bear, then they scorch, dry, and shrink up the fibræ motrices, dissipate their indwelling spirits, and occasion an

incurable contraction; for these fibræ motrices are not fit to perform the function of motion unless they remain soft, flexible, moist, and slippery.

Linimentum Hæmorrhoidale.

A Liniment against the Piles.

Take oil of roses two ounces; *emplastrum de minio*, an ounce; white wax an ounce and half; when they are melted together stir in æthiops mineral two drachms; opium and saffron, of each a drachm; and make them into a smooth liniment, *f. a.*

This is given in Bates very injudiciously, which we have therefore corrected here; it is a good medicine against the piles, and will soon cool and procure ease upon their being anointed with it; it is also of use in gouty and arthritic pains, when they are confined to a narrow compass; but care must be had not to repel the humors to more noble parts.

Linimentum.—Another.—

Take ointment of poplar buds (described Part II. Book IV.) an ounce; sugar of lead a drachm; opium; a scruple; oil of amber and anisated balsam of sulphur, of each ten drops.

This is more conformable to the present practice than the foregoing, and upon the same basis may many more be contrived.

Linimentum Virilitatis.

A Liniment against Impotency.

Take clarified honey and oil of nutmegs by expression, of each half an ounce; pellitory of Spain, black pepper, and cubebs, of each half a scruple; civet, one scruple; musk half a scruple; balsam of Peru a drachm. Make all into a liniment, *f. a.*

With this it is advised to rub over the penis and perinæum, in order to stimulate to venery ; but the sole end such means can answer, is only the purchase of a short pleasure, which, by being so procured, more strains, damages, and debilitates, than twenty times as much that is prompted only by natural incentives.

Linimentum Sympatheticum.

The Sympathetic Liniment.

Take oil of roses and fine bole, of each an ounce ; linseed oil two ounces ; man's grease, moss of human skull of a person killed by violence, in powder of each two ounces ; mummy and man's blood, of each half an ounce. Make a liniment, *f. a.*

We give this here only to oblige such as are weak and whimsical enough to have any belief in such things. If the weapon by which a wound is made be dressed with it, it is said to cure as much as any application immediately to the part itself ; but for such knowledge the reader may turn to Sir Kenelm Digby's treatise of the sympathetic power, and meet with a philosophy as ridiculous as the facts are false upon which it is founded ; but so easy is delusion to some minds, that they are better entertained with chimæras than demonstrative truth.

Linimentum Herpeticum.

A Liniment against Tetters.

Take quick lime and auripigment, of each a drachm ; tartar, bay salt, common soap, of each two drachms ; oil of elder, enough to make them into a due consistence.

This is not so safe a medicine, because of the auripigment, as it is

efficacious ; therefore the following is preferable.

Take *unguentum nutritum* (described in Part II. Book IV.) two drachms ; white vitriol and sugar of lead, of each a scruple ; oil of roses, what is sufficient.

This will check any humors of this kind, which, when they break out round the waist, are by the common people called the shingles ; but such things are to be used as sparingly as possible, and only to the part affected, because they are apt to check insensible perspiration, which is very detrimental.

Linimentum ad Lumbricos.

A Liniment to destroy Worms.

Take common wormwood, mint, tansy, rue, leeks, leaves of the walnut tree, of each three handfuls ; favin, four handfuls ; bearsfoot, six handfuls ; bruise them well with wormseed, two ounces ; fresh bryony roots, four ounces ; colocynth and aloes, of each two ounces ; bullock's gall, a pound ; new butter unsalted, five pounds ; white wine, two pounds ; boil with a gentle fire to the consumption of the aqueous humidity, and then strain for use.

This is fitter for an officinal medicine than to be made occasionally, because it is so troublesome, and the ingredients ought to be had fresh gathered, and when they are in their prime ; it is intended to anoint all the lower belly with, for such as are troubled with worms, or cannot or will not take inwardly what is necessary to destroy and dislodge them ; this may be properly used after bathing, with the fomentation given in the preceding section for the same purpose ; which see.

Lini-

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Linimentum Laterale.

A Liniment for the Side.

Take ointment of marshmallows, six drachms; oil of lilies and bricks, of each three drachms; camphor, half a drachm; melt them together into a liniment.

The person from whom we are furnished with many materials for this part, and has been frequently taken notice of before for his peculiar way of explaining the operation of medicines, says, that this smooths, lubricates, and composes into order the fibrillæ, which by dolorific spasms being torn and racked, strained and stiff, tangled in their series, and confusedly corrugated, depraved the internal channels, by distorting them, and close the cutaneous vents, by pushing them up; also, that it liquifies, exagitates, and discusses the gelatinous lymphæ, which by stuffing up the minute passages of the parts, and hindering the course of the blood, occasioned the inflammation; and for these reasons, namely, composing the fibrillæ in order, opening the pores, restoring circulation, taking down inflammation, and quieting pain, it must needs conduce very much in quieting pains of the side, especially when the muscles and outward parts are affected; but in a true internal membranous pleurisy he does not remember it ever to have done any good, because it is probable it cannot penetrate so far.

Linimentum Pectorale.

A Liniment for the Breast.

Take palm oil, half an ounce; oil of nutmegs by expression, a drachm; oil of chamomile, two drachms; spirit of lavender, two drachms: melt them together for a liniment. Or,

Take ointment of marshmallows and palm oil, of each three drachms; oil of mace by expression, a drachm; of aniseed, three drops; spirit of lavender and common oil of chamomile, of each two drachms; melt them together for use.

In asthmas, and any painful sensation or straitness at the breast, these sometimes do good service, by warming and relaxing the fibres, and giving a greater capacity to the containing parts; the spirit of lavender, or any other warm ingredient that may be thought proper, of the like kind, will not indeed incorporate with the other unctuous things, but when warm, and rubbed upon the part, has a great share in carrying in with it what is agreeable, and proving a cordial to all the parts it touches. After long rubbing it in with a warm hand, lay a brown paper first greased with the liniment upon it, and over that a warm flannel.

Linimentum Digestivum.

A digestive Liniment.

Take the yolk of one egg, and mix it well with two ounces of Venice turpentine.

This is a very common digestive, and now much used by our surgeons in their dressings.

Linimentum ad Forcas.

A Liniment after the Small Pox.

Take oil of sweet almonds, two ounces; sperma ceti, three drachms; oil of rhodium, six drops; melt them together by a gentle heat, and mix for a liniment.

This is of admirable use after the small pox, and makes the scabs fall off easily, and preserves the skin smooth; it must begin to be

used as soon as they grow brown and harden, being just touched upon them with a feather, so as to keep them always moist with it.

Linimentum Cosmeticum.

A Cosmetic Liniment.

Take oil of sweet almonds, two ounces; spermaceti, three drachms; magistery of bisnuth, a drachm; oil of rhodium, six drops. Make them into a liniment.

This is a pleasant and grateful beautifier, and keeps the skin not only free from freckles and specks, but soft and smooth.

Linimentum Podagricum.

A Liniment for the Gout in the Feet.

Take black soap, two ounces; honey and Barbadoes tar, of each an ounce and half; and with the white of an egg well beaten up, make into a liniment. Or,

Take black soap, two ounces; camphor and opium, of each a drachm; honey, half an ounce; oil of petre and Barbadoes tar, of each two drachms; make them into a liniment.

These are efficacious medicines, and ought to come into the hands only of such as are well acquainted with the state of the body, and the condition of the humors, so as to know whether they are fit to be thus treated; otherwise the gouty matter may be driven back upon some of the principal parts, or drawn down faster than the patient can well bear.

Emplastrum Apoplecticum.

A Plaster against the Apoplexy.

Take galbanum, opopanax, of each two drachms; pellitory of Spain and castor, of each a drachm; oil of amber a scruple; Venice

turpentine, enough to make a plaster.

Emplastrum Cephalicum.

A Cephalic Plaster.

Take compound betony plaster, three drachms; gum caranna and tacamahaca, of each two drachms; balsam of Peru a scruple; make them into a plaster. Or,

Take mastich, gum juniper, nutmeg, cloves, of each a scruple; gum labdanum, half an ounce; make them into a plaster with a sufficient quantity of oil of mastich.

Any of these are to be spread upon thin leather, and laid upon the head fresh shaved, so as to cover all the sutures, and they are of use in all nervous cases, especially from cold causes, for they warm, contract, and invigorate the fibres, whereby they are enabled to vibrate more strongly, and shake off those superfluous humidities which clog and interrupt their motions.

Emplastrum Nuchale.

A Plaster for the Nape of the Neck.

Take white pitch, half an ounce; powder of marjoram, half a drachm; euphorbium, five grains. Or,

Take white pitch, two drachms; galbanum, Venice turpentine, of each half a drachm; black pepper and mustard seed powdered, of each a scruple; oil of origany, two drops. Or,

Take gum caranna, three drachms; oil of amber, four drops: mix.

These spread to the breadth of a man's hand, are often applied to the nape of the neck, to divert rheums from the eyes, and such humors, as occasion pains in any part of the head: in some they will blister the skin by long lying, and in most they will collect a dewy

dewy moisture. And for the same purposes they are sometimes also laid behind the ears, to take away pain from the teeth, which is a very convenient place, because the external jugular arteries detach several branches under the ears, which entering the inferior jaw, are divided to carry blood to the roots of all the teeth for their nourishment, whence those parts are more immediately affected by such application than when the plasters are laid upon the temples, to which these are often applied, and the latter particularly, wherein some order a grain or two of opium.

Emplastrum Suppedale.

Plaster for the Feet.

Take cephalic plaster, six drachms; hard pitch, half an ounce; powder of euphorbium, two scruples; camphor and oil of amber, of each a scruple; spread and apply it to the feet. Or,

Take Burgundy pitch half an ounce; Venice turpentine, as a fœtida, of each two drachms; euphorbium, camphor, of each a drachm; volatile sal ammoniac, a scruple; oil of amber, half a scruple; make hereof two plasters for the soles of the feet.

In fevers attended with great pains in the head, spasms, and a delirium, these are frequently ordered, because, by their heat and irritation of the feet, they are supposed to increase the blood's velocity that way, and of consequence diminish it in the head; and they may also sometimes favour the critical expulsion of certain humors which may be the cause of the disease, and be disposed for discharge by those pores. What has

prejudiced some so much as to order euphorbium even out of the cephalic plaster of the college for these uses, it is not easy to guess; for the greater the stimulus is thus made, the better must certainly the intention in view be answered. What is by many ordered, is the following.

Take galbanum and cephalic plaster, of each an ounce. Or,

Take Burgundy pitch and galbanum, of each equal parts.

And often galbanum is ordered alone, and sometimes to wrap the whole feet in; when indeed euphorbium might be too hot, because it would be too apt to blister, though the soles of the feet could bear it.

Emplastrum contra Paralyzin.

A Plaster against the Palsy.

Take galbanum, sagapenum, ammoniacum, of each an ounce; pellitory of Spain, mustard-seed, of each half an ounce; wax, an ounce and a half; Venice turpentine, a sufficient quantity.

This is of use to cold paralytic limbs, to wrap them up with it, because it will warm and cherish the almost decayed fibres.

Emplastrum Arthriticum.

The Gout-Plaster.

Take gum elemi, colophony, Burgundy pitch, of each an ounce; red lead, mastich, of each two drachms; oil of petre, spike, and anise, of each a scruple: mix, *f. a.* Or,

Take Burgundy pitch, two ounces; galbanum, an ounce; live sulphur, two drachms; powder of amber, one ounce; of hermodactyls, orris-root, cummin-seed, and chamomile-flowers, of each half an

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ounce :

ounce: make them into a consistence, with a sufficient quantity of oil of petre.

These may be applied to gouty limbs when the pain is much fixed, but are chiefly adviseable in the sciatica, or hip-gout, because that is sometimes of long continuance; whereas in the feet or hands it frequently shifts places before a plaster can well take effect: and to this purpose the following is also of great use.

Take volatile sal ammoniac, two drachms; Venice turpentine, six drachms; wax, half an ounce; make them into a plaster.

This ought immediately to be laid upon the part when made, and the volatile salt will penetrate very far, and remove pain sometimes at a distance, where other things cannot reach; but this will make but an indifferent consistence to stick, and therefore the following may be preferable.

Take cummin plaster, half an ounce; common rosin, a drachm; yellow wax, half a drachm; melt these together, and when almost cold, stir in fine turpentine, a drachm; volatile sal ammoniac, two scruples; camphor, a scruple; oil of amber, fifteen drops; and make them into an emplaster.

Emplastrum Carminativum Laterale.
A Plaster for the Side against the Wind.

Take cummin plaster, an ounce; camphor, a scruple; oil of aniseed, fifteen drops: mix them into an emplaster.

This may be applied where stitches are obstinate and lasting; and it will help to break away and discuss the cause; and in a nervous or spasmodic pleurisy, it will do service. Or,

Take Paracelsus's styptic plaster, and the soap plaster, of each an ounce and a half; ointment of poplar-buds, half an ounce; melt them together, and when almost cold, stir in camphor in fine powder, three drachms.

Emplastrum Epispasticum.
Epispastic Plaster.

Take as much of the discutient plaster described in Book IV. as is necessary to spread thick upon a leather, and work in as much powder of the cantharides, with your finger, as will stick upon it.

This is the common way in the hospitals, and it is as good as any for the nicest patients; for what of the flies lie in the body of the plaster is of little effect; and this way never fails; but then the margin must be spread with some sticking plaster, to keep it fast upon the part.

Emplastrum Spleneticum.

A Plaster against the Spleen.

Take cummin plaster, compound melilot plaster, and gum tacamahaca, of each two drachms; plaster of hemlock, with ammoniacum, and balsam of Peru, of each a drachm: mix for a plaster. Or,

Take cummin plaster, and of hemlock plaster, with ammoniacum, of each equal parts: make them into a plaster. Or,

Take hemlock plaster, with gum ammoniacum, and spread it by itself.

Any of these laid to the region of the spleen, will frequently give ease, by sending in such subtil and active particles as help to shake the spleen, and break those heavy grumes with which it is sometimes almost obstructed.

Emplastrum

Emplastrum Hystericum.

An Hysteric Plaster.

Take strained galbanum, half an ounce; asa fœtida, two drachms; yellow wax, a drachm; camphor, half a drachm; oil of amber, ten drops; and make a plaster for the navel. Or,

Take the hysteric plaster of the College, and strained galbanum, of each half an ounce; asa fœtida, a drachm. Or,

Take galbanum, a sufficient quantity alone.

These are reckoned to be of use in all hysterical disorders, and to loosen the belly; but galbanum alone is what is now generally prescribed; and sometimes a little civet in the middle of it upon cotton, and a piece of silk stuck over it; and where no civet is ordered, for neatness only, the cotton and silk are commonly put in the middle; to be placed just upon the navel.

Emplastrum Anthelminthicum.

A Plaster against Worms.

Take aloes and myrrh, of each a drachm; species of hiera, and Venice treacle, of each half a drachm; oil of wormwood, four drops; ox-gall, a scruple; honey enough to make a plaster. Or,

Take aloes, safin, and wormseed in fine powder, of each half a drachm; ox-gall, a scruple; Mithridate sufficient, with five drops of oil of wormwood.

These may be laid all over the bellies of children troubled with worms, and that cannot be prevailed upon to take necessary remedies inwardly: they will also loosen the belly; for these purposes the sinking hepatic aloes is best; and where it can be dispensed with (for sometimes weakly

children cannot bear it) a plaster may be contrived with little else in it; as thus:

Take hepatic aloes, two drachms; oil of wormwood, ten drops: make them into a due consistence for spreading upon leather, with a quantity sufficient of ox-gall.

Emplastrum Febrifugum.

A Febrifuge Plaster.

Take frankincense, two drachms; tacamahaca, a drachm; saffron in powder, a scruple; Venice turpentine, what is sufficient to make them into a plaster. Or,

Take the febrifuge plaster described Part II. Book IV. above.

These are spread on leather, and applied to the wrists, and sometimes to the pit of the stomach, with a little powder of camphor rubbed upon them; but they cannot be much trusted to, and are fit only for young children, that will not be prevailed upon by other means.

Emplastrum Ictericum.

A Plaster against the Jaundice.

Take saffron in fine powder, a drachm; make it into a due consistence, with a sufficient quantity of honey to spread upon leather, and apply to the right side.

This can be looked upon only as a small auxiliary, where the case is so obstinate as to require help from all quarters.

Emplastrum Nephriticum.

A Plaster against Gravel.

Take powder of opium and saffron, of each a drachm; Castile soap, half an ounce; oxycroceum, two drachms; oil of juniper, half a drachm: make them into a plaster for the reins.

This will be troublesome to
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keep on, and must be done by swathing: it is contrived to help away gravel lodged in the kidneys and ureters, by warming, stimulating, and slackening the vessels, by those subtle particles which it is supposed to transmit through the skin.

Emplastrum Anodynum.

An Anodyne Plaster.

Take minium plaster, an ounce; oil of lilies, a drachm; Venice turpentine, half a drachm; opium, camphor, and sugar of lead, of each twelve grains. Mix for a plaster.

This is of use to assuage pain in any part, whether from the gout, rheumatism, or any scorbutic cause; and will likewise give ease, if laid to the loins, in nephritic tortures.

Emplastrum Pectorale.

A Plaster for the Lungs.

Take strained tacamahaca, half an ounce; Venice turpentine, two drachms; when they are melted together, add powder of Benjamin and storax, of each a drachm; saffron, half a scruple; oil of aniseed, eight drops; of nutmegs, six drops. Mix for a plaster.

This is to be laid all over the breast, where there is any disorder of the thorax; and it is reckoned to comfort and assist weak lungs, and to give ease in asthmas, and straitness of breath.

Emplastrum Stomachicum.

A Stomachic Plaster.

Take gum tacamahaca, an ounce; powder of mint and balauelines, of each half a drachm; oil of cloves, nutmeg, and aniseed, of each three drops. Make a plaster. Or,

Take magisterial stomach plaster, half an ounce; gum tacamahaca

strained, two drachms; melt them together, and stir in balsam of Tolu in powder, a drachm; dragon's blood, and balsam of Peru, of each half a drachm; oil of nutmegs, and of cloves, of each three drops. Make them into a plaster. Or,

Take magisterial stomach plaster, an ounce; spread it upon leather, and rub over it oil of mint, four drops; and of cloves, two drops.

In a weak stomach, that is subject to vomiting and indigestion, these sometimes help internal means of the same intention; they are indeed inconvenient for men who have much hair upon their breast, and when they stick so indifferently as to want swathing; and they ought to be spread very thick, otherwise they will be soon dry.

Emplastrum Dorsale corroborans.

A strengthening Plaster for the Back.

Take diachylon, half an ounce; oxycroceum, two drachms; oil of amber, ten drops. Make them into a plaster. Or,

Take minium plaster, and diachylon, of each half an ounce; gum caranna, two drachms; bole and mastich, of each a drachm; Venice turpentine, a sufficient quantity. Or,

Take galbanum strained, one drachm and a half; powder of mastich, two drachms; Cyprus turpentine, half a drachm; hard pitch, two scruples: melt them carefully together, and add oil of mace by expression, a scruple; and make them into a plaster. Or,

Take diapalma, six drachms; Cyprus turpentine, yellow wax, of each a drachm and a half; balsam

fam of Tolu in powder, half a drachm; oil of nutmegs, four drops. Or,

Take rupture plaster and diapalma, of each half an ounce; fine Armenian bole, and mastich in powder, of each a drachm; oil of mint, six drops.

Any of these may be applied to the region of the loins in all weaknesses of those parts, from what cause soever; and they will assist in a gonorrhœa and the whites. For children who are rickety, they may be spread to cover quite down the spine, and from the nape of the neck to the bottom of the back.

Emplastrum contra Abortum.

A Plaster to prevent Miscarriage.

Take rupture plaster, an ounce; wax, half an ounce; dragon's blood, mastich, Armenian bole, galls, bistort-root, of each half a

drachm; amber, red coral, and nutmegs, of each two scruples; Cyprus turpentine, sufficient to make a plaster. Or,

Take rupture plaster, an ounce; Cyprus turpentine, half an ounce; make a plaster.

Either of these may be laid both upon the belly and back, where there is any apprehension of miscarriage, and likelihood to prevent it, otherwise strengtheners do mischief.

Emplastrum contra Strumas.

A Plaster against the King's Evil.

Take hemlock plaster, with gum ammoniacum, of each three drachms; strained galbanum, Venice turpentine, crude mercury, of each a drachm; balsam of sulphur, half a drachm. Make all into a plaster.

S E C T. XIII.

Of Cataplasms.

Cataplasma Apoplecticum.

A Cataplasin against Apoplexies.

TAKE fresh bryony-root, three ounces; mustard-seed, and black soap, of each one ounce; cantharides, six drachms. Make them into a consistence, with as much as is sufficient of vinegar.

The proper consistence for this form is such as will easily spread upon a cloth, so as not to run thro', nor be very soon dry: for which purpose unctuous ingredients are ordered in most, especially of the emollient kind; but where they are designed to stimulate, and give uneasiness, as in this, such care is

needless. This is to be laid all over the head, where the symptoms are threatening in any nervous cases; and it may be suffered to lie on some days, as particular circumstances may require, though it will, in twelve hours, draw a great deal of water away, although, by reason of the cuticle being tied so close by the hair, it cannot raise a blister. After removal, a melilot plaster may be laid on, and repeated, as usual, till quite well.

Cataplasma Cephalicum.

A Cephalic Cataplasin

Take powder of cloves and nutmegs,

megs, of each two drachms; Guinea pepper, half an ounce; mustard, six drachms; four leaven, three ounces; compound spirit of lavender, one ounce and a half; or as much as is sufficient; and make all into a smooth poultice for the head.

This is much milder than the former, will not blister, and is very warm and strengthening to the nerves. It may therefore be applied to the head fresh shaved, in all disorders which have their origin from thence; especially if their seat be in the brain, and from a cold cause, for it will irritate and shake the fibres in such manner, as to throw off what is offensive, and quicken the motion of their proper fluids. The following is directed to the same intention, but not so good, though from Dr. Fuller.

Take honey, vinegar, and common spirit of wine, of each one ounce; mustard-seed powdered, as much as is sufficient to make it into a due consistence.

Cataplasma Paralyticum.

A Poultice against the Palsy.

Take the pulp of turneps baked, eight ounces; green rue, four handfuls; mustard-seed, two ounces; oil of amber, two drachms; nerve ointment, as much as is sufficient, or two ounces.

This is to cover over a paralytic member, and to be repeated when grown dry; if it be required more stimulating, it may be sprinkled with powder of euphorbium.

Cataplasma Podagricum.

A Poultice against the Gout.

Take black soap, four ounces; yolk of eggs, N° 2; saffron, one

drachm; oil of spike, one ounce. Mix them together, so as to make a smooth poultice. Or,

Take honey and black soap, of each two ounces; mustard-seed, half an ounce; opium, two drachms; camphor, one drachm; the soldier's ointment, as much as is sufficient, or one ounce and a half. Or,

Take black soap, two ounces; honey, and salt of tartar, of each half an ounce; opium, three drachms; camphor and saffron, of each two drachms; nerve ointment, as much as is sufficient, or one ounce and a half.

Either of these is a very effectual penetrating medicine, and they will carry their influence much beyond any plaster or liniment; because they lie warm upon the part, if thick spread. They will not only give ease where the pain is exquisite and intolerable; but, in great measure, also breathe out the offending humour, by transpiration. There can nothing possibly be contrived more effectual to this purpose, though there are innumerable pretensions made to it by quacks and impostors.

Cataplasma Auriculare.

A Cataplasma for the Ears.

Take onions roasted and pulped, one ounce and a half; saffron, one scruple; oil of amber, fifteen drops; powder of cummin-seed, and ointment of marshmallows, of each three drachms.

This is to be applied to the ears, when there are apprehensions of imposthumation in the head; and, if attended with great pain, some portion of opium may be added with success; and there will be no danger; and if the patient can bear sneezing, provokers thereunto

unto are very proper, at the same time, to shake the cystis, and break way for the matter as soon as ripe.

Cataplasma Febrifugum.

A Febrifuge Poultice.

Take Venice treacle, two ounces; mustard-seed, and grains of paradise, of each one drachm and a half; bay-salt, one ounce; black soap, two ounces; oil of spike, one ounce; vinegar as much as is sufficient. Or,

Take fresh bryony-root, two ounces; black soap, three ounces; pickled herrings, or anchovies, four ounces; bay-salt, one ounce; vinegar, as much as is sufficient. Or,

Take horse-radish root and squills, of each two ounces; green rue, mustard-seed, salt, of each one ounce; black soap, two ounces; vinegar, as much as is sufficient. Or,

Take fresh rue, two ounces; fresh gathered bryony-root, four ounces; four leaven, bay-salt, black soap, of each one ounce and a half; mustard-seed, two ounces; vinegar, as much as is sufficient. Or,

Take green rue, one handful; black soap, bay-salt, of each one ounce; one pickled herring stripped from the bones, ointment of marshmallows, one ounce and a half; sharp vinegar, as much as is sufficient to make them into a smooth poultice.

Any of these may be applied to the feet in fevers, where the head is much affected, and attended with a delirium; and they ought to be laid on thick, and renewed every six or eight hours: the last is most suitable to the present practice, and least troublesome to procure.

Cataplasma —

Another for the Wrists.

Take powder of white hellebore, half an ounce; salt-petre, two ounces; pulp of figs, as much as is sufficient to make a poultice. Or,

Take powder of white hellebore and mustard-seed, of each two drachms; salt-petre, two ounces; oil of amber, twenty drops; camphor, two drachms; pulp of figs, as much as is sufficient.

These applied to the wrists, and repeated once a-day, will frequently abate intermittents in children, without any other help; but sometimes they are apt to blister, but they can then do no harm, and will be more likely to answer the end proposed. For the same purpose is the following, but not so easily made, nor so certain in its success.

Take Venice turpentine, one ounce; yellow paring of orange rind, two drachms; bole, one drachm and a half; foot, half an ounce; pigeon's dung, one ounce and a half; large spiders webs, Num. 6; black soap, two ounces; vinegar, as much as is sufficient to make them into a smooth poultice.

Cataplasma Anthelminthicum.

A Poultice against Worms.

Take Venice treacle, half an ounce, worm seed powdered, two drachms; hepatic aloes, one drachm; oil of wormwood, twenty drops. Make them into a poultice, with as much as is sufficient of honey.

This is proper for young children troubled with worms, and that have large swelled hard bellies; and who will not use other means. It loosens the belly, and makes it shrink and soften.

Cataplasma

Cataplasma ad Hydropem.

A Cataplasin against the Dropsy.

Take fresh cow-dung, one pound; white bryony root fresh gathered, half-a pound: bay-berries powdered, four ounces; cummin seed, and flower of brimstone, of each two ounces; hog's lard, three ounces. Make all into a poultice, with as much as is sufficient of strong lees.

This is good to soak out the water in the legs, by wrapping them up in it warm, and shifting it often; to which purpose scari-fying is frequently necessary. It may also be laid to the belly in a tympany; but this is very troublesome.

Cataplasma Diureticum.

A Diuretic Poultice.

Take juice of onions, parsley, smallage, fennel, of each two ounces: crumb of white bread, as much as is sufficient.

This is to be applied to the lower part of the belly, in obstructions of urine; and will do the more service, if an emollient fomentation be used before it, and the perinæum be rubbed over with oil.

Cataplasma Synanchicum.

A Poultice against Quinsies.

Take album græcum, one ounce; pulp of the conserve of roses, two ounces; syrup of white poppies, as much as sufficient.

This is to be spread very thick, and applied to the throat, from ear to ear, and renewed every six or seven hours, or oftener, if dry.

Cataplasma Stomachicum.

A Cataplasin for the Stomach.

Take Venice treacle six drachms; powder of cinnamon and cloves, of each one drachm; oil of mint, six drops; oil of worm-

wood, two drops; vinegar, as much as is sufficient. Or,

Take Mithridate, one ounce; powder of mint, two drachms; cinnamon, one drachm; oil of cinnamon and mint, of each three drops; oil of mace by expression, half a drachm; spirit of lavender, two drachms; vinegar, as much as is sufficient, Or.

Take pulp of quinces boiled in vinegar, two ounces; powder of cinnamon and balauustines, of each one drachm and a half; of mint, two drachms; oil of cloves, nutmegs and amber, of each four drops; spirit of lavender, as much as is sufficient to make a poultice.

In a great debility of the stomach, when it cannot retain the food, these will greatly strengthen the fibres, and assist internal means. They should be applied hot, and frequently renewed.

Cataplasma Laterale.

A Cataplasin against the Pleurisy.

Take meal of linseed, six ounces; of the meal of fenugreek and cummin, of each one ounce and an half; honey, two ounces; linseed oil, enough to bring them into a consistence.

This laid hot to the side upon the affected part, will wonderfully discuss the obstructed humours, relax the corrugated fibres, and promote transpiration and expectation. Some authors of good credit affirm, that butter and cummin seed applied to the breast will be tasted in the mouth; and this, seems not so strange to those who are acquainted with animal transpiration; which is shewn by a multitude of instances, of the truth whereof we have too many proofs to call them in question. For many of this class, and particularly

ticularly onions, from outward application, will so penetrate into the skin, and be taken up by the blood, as to prove diuretic, and make the urine smell in the same manner as when they are eaten.

Cataplasma Emolliens.

An Emollient Cataplasin.

Take pulp of cassia, one ounce; elder ointment, two ounces; sperma ceti, half an ounce; powder of agaric and album. græcum, of each half an ounce. Make them into a cataplasin.

This is a better medicine than the *cataplasma synanchicum* above, which is from Bates's Pharmacopœia, for the quinsy, or any inflammatory swellings of the throat; but it is so unctuous, that the heat will make it apt to get through a cloth, unless it be many times doubled.

Cataplasma Sambucinum.

A Cataplasin of Elder.

Take green leaves of elder, four ounces; cut and boil them in milk till soft; strain away the milk, and to the mass add soft soap, one ounce; spread it upon a double cloth; strew it over with ceruse, and apply it warm.

This seems but an odd mixture; for the soap is very fretting and penetrating, and the ceruse is much the contrary; for which the common excuse is, that they qualify one another: but it is more commendable to have a composition as near of a piece as conveniently can be: in the room of this therefore take the following.

Cataplasma.—Another.

Take green leaves of elder, four ounces; boil them in milk till very soft, then strain out and beat them to a mash, to which

put ointment of elder flowers, two ounces; ointment of poplar buds, one ounce; camphor in fine powder, one drachm. Make all into a poultice.

In all inflammatory swellings, such as are called the St. Anthony's fire, this is an admirable medicine; and it will, to a wonder, cool, ease, and relax the part; so that the humours may either transpire or return by the reflux blood into the common mass, thence to be rejected by some convenient outlet. But unless a case be very slight, outward applications are by no means to be trusted alone: for sometimes both bleeding, purging, and blistering, are also necessary, and generally some of them.

Cataplasma Hæmorrhoidale.

A Poultice for the Piles.

Take yolks of eggs boiled hard, N^o 4; oil of amber, two scruples; linseed oil, as much as is sufficient.

This is to cool the piles when inflamed and angry; and it is softer much than many more restraining things generally used in such cases.

Cataplasma Refrigerans.

A Cooling Poultice.

Take pulp of baked or roasted apples, one ounce; white bread boiled in milk, and gently squeezed, half an ounce; the white of one egg well beaten up, and Rhafis's white troches powdered, two drachms. Mix them into a poultice with as much as is sufficient of starch.

This is intended for sore inflamed eyes, and is to be spread upon a fine cloth pretty thick, and laid upon them going to bed.

Cataplasma ad Paronychiam.

A Poultice against Whitloes.

Take the yolk of one new laid egg, and add to it common rosin in fine powder, as much as is sufficient; balsam of Peru, six or se-

ven drops; and mix well together.

This is said to be an excellent medicine for the purpose its title expresses; and to forward the supuration and discharge of the matter.

S E C T. XIV.

Of Anomalous Forms.

BESIDES those forms which we have given under the foregoing divisions, there are also others which sometimes an extraordinary exigency calls for, and which we shall here collect into one section; not with any regard to the curative intention, as in the foregoing, but as they occur from authors and the present practice.

Balsamum Arthriticum.

A Gout Balsam.

Take oil of olive, eight ounces; oil of vitriol well rectified, two ounces. Mix them in an open glass vessel.

This comes recommended in the works of a physician who was the patron of acids. Schroder has the same; with the *adeps humanus*: however, it is not worth contending about; for it is so sharp as to excoriate the place it is rubbed upon; and is as likely to fix and bind up the offending humours in the parts, or repel them, as to fit them for transpiration. As soon, almost, as these are mixed, they work into stiff reddish balsam, that will cut like butter, or the Luca-tellus's balsam.

Balsamum Nephriticum.

A Nephritic Balsam.

Take oil of sweet almonds new-

ly drawn, four ounces; oil of white poppy seed and linseed, of each two ounces; oil of nutmeg by expression, half an ounce; oil of petre, five drachms; balsam of Peru, two drachms; oil of juniper, four scruples; oil of aniseed, one scruple; oil of vitriol, one ounce; camphor, two scruples. Mix them together.

This is vastly preferable to the former, because the penetrating aromatic oils not only help to dislodge and dissipate the peccant humors, but also to warm and strengthen the fibres: and in the gout and rheumatism, where they fix with great pain, this balsam will do good service. It is likewise proper to rub paralytic limbs with, because it stimulates and spurs the parts to motion, whereby the nervous fluid is better dispensed to give new sense and life.

Jusculum ad Tabem.

Broth for a Consumption.

Take a capon picked, drawn, and cut into pieces; sheeps trotters and calves feet, of each N^o 4; shavings of hartshorn and ivory, of each half an ounce; yellow Sanders, three drachms; dates, N^o 40; raisins sliced and stoned, four ounces; pearl barley, one ounce; boil these in spring-water, one cong.

to

to four pounds; adding, when it is almost boiled enough, ox-eye flowers dried, leaves of colts-foot, maiden-hair, sage, of each one handful; mace, half a drachm; one nutmeg; and of Malaga sack, one pound; then strain out the liquor for use. Or,

Take conserve of red roses, four ounces; consfrey-root, two ounces; shavings of hartshorn, one ounce; maiden-hair, one handful; sage, two handfuls; plantane, half an ounce; raisins of the sun, two ounces; dates N^o 4; boil these together, with a chicken, and the scrag-end of a neck of mutton chopped to pieces, and three ounces of bread, in as much as is sufficient of spring-water: when it is cold take off the fat. Or,

Take craw-fish, N^o 100; bruise them to pieces alive in a mortar; then boil them in two pounds of spring-water to one pound and an half; adding towards the last, two blades of mace, one nutmeg, and of old Malaga wine, half a pound; and strain it for use. Or,

Take the tails of twenty craw-fish, candied eryngo root, one ounce; the bottom of a white loaf, raisins sliced, and stoned, two ounces; liquorice, three drachms; boil in three pounds of water to two pounds, and strain for use.

Any of these may, as particular circumstances of the appetite direct, be made use of to restore persons, recovering from long wasting distempers, and wherever a consumption is threatened; for where the stomach is weak, it cannot digest solid and gross food, and therefore a diet of rich nourishment is required, that needs but little trouble to assimilate and distribute it to the several parts of the body, to recruit what has been worn away. In hectic habits these are of great

service, because they help to give a consistence and softness to the humors, whereby they neither run so fast in the canals, nor wash away with them the substance of the parts, but, on the contrary, leave good nourishment behind. The craw-fish particularly, as indeed most shell-fish, are greatly nourishing, and have a peculiar quality of smoothing and sweetening acid and sharp humours; as is even apparent in their deadening almost the acidity of vinegar in mixture, by covering its points with a soft oily substance. And for this reason these are of eminent advantage in scorbutic constitutions, and come next to the viper, whose excellencies for these purposes, see Part I. and amongst the preparations at the latter end of that part: and with that they likewise agree in invigorating, after a peculiar manner, the organs of generation, and distending them with such a semen, as not only more frequently prompts to venery, but makes those intercourses more prolific, and sustained with less waste of strength. For all such purposes these are to be chosen and used at discretion.

Epithema cum Calce viva.

An Epithem with Quick-Lime.

Take quick-lime, two ounces; honey, as much as is sufficient to make it into a fit consistence to be spread upon leather.

This term is, indeed, fit for any form externally to be applied, and is therefore common in lotions or cataplasms, or any other topics. If this is not carefully mixed, it will not be smooth and easy upon the part, because of the lumps which it is apt to run into: it is intended against gouty and rheumatic pains; and if soap, camphor, and opium were

were added to it, in due quantities, it would make an admirable composition for such purposes; for it penetrates prodigiously, and rarifies the part so much, that it will give vent to the offending humors by perspiration, without a possibility of repelling them; wherein is the greatest danger in such cases, especially in the beginning of a paroxysm. For the expulsion, or rather attraction of such tormenters therefore, the following may be made use of.

Epithema Saponaceum.

An Epithem with Soap.

Take spirit of wine rectified, four ounces; spirit of scurvy-grass, two drachms; spirit of sal ammoniac, six scruples; Venice soap scraped thin, one ounce and a half; camphor, six drachms; opium, one drachm; saffron, half a drachm; digest them three or four days, and decant the liquor for use. Or,

Take of the foregoing with quick-lime, and add to it black soap, one ounce; opium and camphor, of each two drachms; saffron, and oil of spike, of each one drachm.

Either of these, rubbed in upon the part, will infallibly answer the expectation of such as know how, and when, to direct them; but things of this efficacy are not in the talent of every one who undertakes such cases.

Epithema cum Saccharo Saturni.

An Epithem with Sugar of Lead.

Take sugar of lead, one ounce; the best white-wine vinegar, half a pound; digest together till all the sugar is dissolved.

This is recommended to stop any flux of blood, if it be applied to the region of the heart by a

linen cloth dipped into it; but at first its extreme coldness gives a person a quaking like the horror of an ague fit; and as soon as it grows warm, it is to be let cool, and dipped afresh.

Epithema Cephalicum.

A Cephalic Epithem.

Take of Hungary water, six drachms; compound spirit of lavender, and spirit of saffron, of each two drachms; apoplectic balsam, one scruple; oil of cloves, ten drops.

This is directed to rub the temples, nostrils, &c. in swooning fits, or in any sudden disorders from a cause, whose seat is in the nerves; because it warms and assists their tonic motions.

Epithema Stomachicum.

A Stomachic Epithem.

Take spirit of wine camphorated, four ounces; Andromachus's treacle, two drachms; oil of cloves, fifteen drops; oil of nutmegs, ten drops; and of mint, four drops.

This is, in virtue, much like the stomachic fomentation, before given, which see; and may be rubbed upon the pit of the stomach, and parts all around, with a warm hand at any time.

Epithema Anodynum.

An Anodyne Epithem.

Take spirit of wine, four ounces; camphor, one drachm; opium, two drachms; saffron and cloves, of each a drachm.

This is much of the same virtue as that with soap above, though not quite so searching; but it is cleaner to use for such as require nicer applications.

Sternutatorium cum Turpetho Minerali.

A Sternutatory with Turpeth Mineral.

Take turpeth mineral, half a scruple; powder of liquorice, half a scruple; nunege, one scruple; oil of rosemary, two drops. Mix them together.

This is very powerful in all such illnesses, of the head, as proceed from tough viscid matter hanging upon the glands and sinuses, and have been of long continuance and obstinate; for it brings it away in such plenty, that it is almost like a salivation; but it is apt to make the nose sore, and therefore the nostrils should be rubbed sometimes with a little oil of almonds, or warm milk.

Sternutatorium cum Euphorbio.

— Another with Euphorbium.

Take powder of euphorbium, half a scruple; white-wine, one ounce; spirit of scurvy-grass, two drachms; oil of marjoram, two drops; shake all together.

This with the euphorbium, is too sharp and violent to be trusted to snuff up: and therefore it is best to dip a little cotton and just thrust it into the nostrils. Ludovicus is so timorous, as to order but half a drachm in water, half a pound to be boiled and strained, and even then to be used but very sparingly.

Sternutatorium cum Succis.

With Juices.

Take leaves of honey-suckle, four handfuls; primrose, three handfuls; betony, two handfuls; marjoram, one handful; bruise them all together, and press out their juice.

This is much milder than either

of the former, and may be used in any disorders and stoppages of the head; either by snuffing a little out of the hollow of the hand, or blowing it up the nostrils with a quill; and these liquid snuffs have this advantage over powders, that they do not clog up and heat the nose.

Sternutatorium cum Marjorana.

— With Marjoram.

Take of an infusion of marjoram made like tea, one ounce; dissolve in it salt of vitriol, ten grains; and put it in a glass for use.

This is directed and much recommended by Etmuller; and it may be made stronger or weaker, by a greater or lesser quantity of water, as is found needful. But, of all the medicines to this purpose, the following is most preferable.

Sternutatorium cum Sale Volatili Oleoso.

— With Sal Volatile.

Take sal volatile ol. two drachms; spirit of lavender, twenty drops; damask-rose water, or orange flower water, half an ounce. Mix.

This is both mild and grateful, and very refreshing to the head, as well as a gentle provoker of what is secreted by the nose.

Expressio Asthmaticæ.

An Asthmatic Expression.

Take live millepedes 150, bruise them in a marble mortar, adding water of hyssop, four ounces; of piony compound, an ounce; and in the strained liquor dissolve gum ammoniacum, half a drachm; and add tincture of Benjamin, two drachms; syrup of balsam, an ounce; oil of aniseed, a drop; and as much sal ammoniac as will make it quick,

If this be well managed, the oil of aniseed will mix, otherwise it will lie in a spot at top, and pour off with one dose, which is to be a spoonful, two or three times in a day, as symptoms are urgent; but the whole is an unsightly and unpleasant medicine to the taste, tho' the scent is grateful; it is very detergent and diuretic, and therefore cannot fail to open the breast in asthmas and all infarctions of the lungs.

Expressio IctERICA.

An Expression for the Jaundice.

Take live millepedes N^o 100; saffron cut small, half a scruple; nutmeg, half a drachm; white sugar, half an ounce; beat all these well together, and then pour upon them the last runnings of *aqua mirabilis* (or, for want of that, milk-water) four ounces; and magisterial worm-water, an ounce; and after due mixture strain the liquor out by squeezing hard.

This is good for the purpose its title expresses, and is of service in almost all chronic disorders that foul the glands. This quantity serves for two doses, half to be taken in the morning, and the rest at four o'clock in the afternoon.

Expressio Millepedum simplex.

A simple Expression of Millepedes.

Take live millepedes and white sugar, of each three ounces; beat them well together in a marble mortar, and pour upon them a pound of white wine, which strain out again by hard squeezing.

Dr. Fuller, who had this in his *Pharmacopœia Extensoranea*, says, that millepedes abound in a volatile salt, as all insects do; that they incide and dissolve tough clammy phlegm wheresoever it

sticks, attenuate, exalt, and depurate the blood, penetrate into the glands, nerves, fibres, smallest pipes and passages, piercing thro' obstructions, deterring, cleansing, and comforting, and are famous for their diuretic quality; they are used in cases of gravel, sand, dropsy, jaundice, king's-evil, cough, phthisic, consumption at the beginning, hypochondriac affections, scorbutic joint-pains, and dimness of sight; they procure and preserve a good skin and fine complexion, and are much celebrated for an internal medicine in fore-breasts, malignant phagedenic ulcers and cancers; they seem not convenient for a hot thin blood; and it is reported, that, taken in large quantities over night, they will give a scalding of urine, and that when they do so, their true remedy is balsam capivi. The expression may be given for some time together, about three ounces every morning.

Expressio IctERICA altera.

Another.

Take leaves of celandine, two handfuls; green juniper berries an ounce; to these well bruised add saffron a scruple; white-wine a pound; *aqua mirabilis* two ounces: after it has stood cold twelve hours strain out the liquor, and sweeten it with syrup of the five opening roots, an ounce and a half; and keep it for use.

This is a milder detergent than the former, and may be sufficient in slighter cases to be taken three ounces thrice a-day; or it may be a very convenient diluter, or vehicle for some other more solid forms of the same intention, in the most obstinate jaundice.

Ex-

Expressio Cephalica.

A Cephalic Expression.

Take fresh-gathered male piony roots, four ounces; mistletoe cut small, an ounce; Canary wine, a pound; give them a hot and close infusion for two hours; then having squeezed out the liquor, add to it compound piony water, and compound syrup of pionies, of each two ounces; tincture of castor two scruples.

This is a good medicine where it happens conveniently to procure the ingredients as directed, and may be depended upon to do service in all disorders from a nervous origin, and where cephalics are indicated; three ounces may be taken every night and morning.

Expressio Scorbutica.

A Scorbutic Expression.

Take brook-lime, water-creffes, dandelion, clivers, of each two handfuls; oranges cut to pieces with their peel N^o 4; bruise them together, and add white-wine and elder flower water, of each a pound; which after some time strain off, and sweeten for use.

This is good in hot scorbutic constitutions, and ought to be drank for a month together at least in the spring-time every morning about six ounces; using a suitable diet.

Expressio Styptica.

A Styptic Expression.

Take common daisies, yarrow, and nettles, of each three handfuls; bruise them, and pour upon them plantane-water (or what is as good, spring-water), twelve ounces; after standing an hour strain it, and add *sul prunel.* two drachms; and sweeten it with syrup of dried roses two ounces, for use.

This is good to cool and thicken the blood, and is principally serviceable in hæmorrhages at the nose, or spitting of blood, making bloody urine, or an overflowing of the menses; and may be given four ounces, three or four times a-day, as needful.

In country places remote from the shops, and inconvenient to manage simples in a more elaborate or elegant manner, divers good remedies may be supplied this way, where the materials are to be found; for nothing can be more ready and expeditious than to bruise a plant and press out its juice; but where there are better opportunities in great towns, such prescriptions would be deemed not very neat, nor are they agreeable to take.

Frontale Cephalicum.

A Cephalic Frontal.

Take rose-cake made by the distillation of the flowers in a cold still, fry it in vinegar, and sprinkle it with powder of nutmeg, a drachm; zedoary, half a drachm, and camphor, two scruples.

This is to apply to the forehead and temples in violent hot heating pains of the head, and is to be refreshed with vinegar as often as it grows dry, until it has answered its end.

Frontale Mastichinum.

A Mastich Frontal.

Take mastich and frankincense in powder, of each two drachms; white chalk, bean-meal, of each half an ounce; white of eggs well beaten, oil of roses, of each six drachms; and as much vinegar as is necessary to make it into a consistence to spread upon cloth.

This is to be used to the forehead when the eyes are afflicted with rheums, and that for prevention as well as cure; for Dr. Fuller says it sticks very fast, compresses and constringes the little tubuli, and internal passages, and so hinders the deflux of humors; for the parts about the eyes are so constituted, both by their spongy fabric and declining situation, as to be apt to receive whatever humors flow down from either the pericranium or neighbouring muscles, insomuch that it is not unusual for a blow upon the head to settle down into a black eye.

Frontale Camphoratur.

A Frontal with Camphor.

Take vinegar of roses, two ounces; compound spirit of lavender (in which have been dissolved opium and camphor, of each half a drachm), an ounce. Mix for use.

The camphor in this will separate, and therefore must be well shook at the time of using. There are others of this denomination, but seldom used; and this last is the most easily made, and the nearest and most effectual to wash the head with in violent beating pains, or in the burning heat of a fever attended with a delirium.

Suffimentum Hystericum.

An Hysterie Fume.

Take asa fetida an ounce; best white wine vinegar, a pound; boil them in a pot with a narrow mouth, and let the patient hold her head over it with her mouth open.

This is an untoward application, and seems justifiable only in cases where other means cannot be used;

tho' in some kinds of hysteric convulsions, steams, this way received up the nose, have very sudden and remarkable effects.

Suffimentum Catarrhale.

A Fume for a Catarrh.

Take olibanum, amber, Benjamin, storax, gum guaiacum, and balsam of Tolu, of each two scruples. Make all into a gross powder to burn.

Where the defluxion is very thin, and has much of its cause in the laxity of the glands, such means may do service, by constringing the parts and repelling the flux, insomuch that it may be thrown off by other more proper outlets; but where there is an asthma and very weak lungs, there is great reason to fear mischiefs, because checking the rheum will thicken it, and make it pass with great difficulty through the pulmonary vessels, when in the course of circulation it comes thither; the following, therefore, may be less inconvenient, though this may also be used in the same manner to burn upon coals, only receiving the steam with a cap before it is put on, especially at night going to bed.

Suffimentum. — Another. —

Take gum guaiacum, gum juniper, mastich, myrrh, of each a drachm; cloves, two drachms; balsam of Peru, sixteen drops. Make all into a coarse powder.

Filling a thick cap frequently with the steam of this, burnt upon coals, may, with some time using, strengthen the fibres, and particularly the glands about the head, whereby they will not be liable to those suffusions of lymph, which
ought

ought to be remedied by other secretions, and chiefly by urine.

Suffimentum ad procidentiam Ani.

A Fume against the falling down of the Fundament.

Take frankincense, mastic, amber, and cloves, of each a drachm; red rose leaves, balauſtines, of each two drachms. Make them into a gross powder.

This is to be burnt upon a chafing-dish of coals under a chair with a hole in it, over which the patient is to sit with the bare part to it, after the gut is thrust up, and by such means continued, will the sphincter at last get strength enough to keep it up without any such help. In a tenesmus it is also of use.

Suffimentum ad procidentiam Uteri.

A Fume against the falling down of the Womb.

Take myrrh, mastic, cinnamon, and spikenard, of each a drachm; mint and red roses, of each two drachms; cloves, zedoary, and pimento, of each half a drachm. Make all into a gross powder to burn.

This is to be used as the preceding, and in the same weakness it is also good, as that is of service in this; these are very easy remedies, and might be beneficial in many uterine weaknesses, where persons are too squeamish or prejudiced to take what is necessary of medicines another way. Fumes from hot aromatic liquors, which are sometimes directed to the same purposes, are hardly so efficacious as those which arise from the burning of dry ingredients, because their moisture prevents their being so immediately restringent.

Suffimentum Odoriferum.

A sweet-scented Fume.

Take Benjamin, an ounce; storax, half an ounce; labdanum, two drachms; musk and ambergrise, of each five grains. Make them into a fine powder, to mix for candles.

The scent of this, burnt in places apprehended to be contagious, or infected with any noisome steams, is not only pleasant but beneficial; they are likewise very agreeable to light pipes with.

Suffimentum.—Another.—

Take cypress roots and *calamus aromaticus*, of each an ounce; rosemary a handful; storax and Benjamin, of each two drachms; frankincense two ounces. Make all together into a gross powder to burn.

This is useful to take away the ill scent of a room, from what cause soever it be; and, in a time of pestilential contagion, would be of good service to burn for an hour or two every morning in all the rooms of a house, or some convenient place where the whole may be filled by its steams; and by this caution many families, who lived in town all the time of the London sickness, escaped being hurt by it.

Litus Aluminosus.

A Litus with Alum.

Take crude and burnt alum, of each two drachms; Armenian bole, and Japan earth, of each a drachm; oil of saffras, six drops; honey of roses, to make it of the consistence of honey.

This is to rub spongy scorbutic gums with, that are apt to bleed upon the least touch, and leave the

teeth loose; they should be done so every morning, as long as there is any occasion.

Litus cum Spermate Ceti.

A Litus with Spermaceti.

Take spermaceti, two scruples; oil of nutmeg by expression, a scruple; sweet fresh butter, half an ounce; the yolk of one egg; white chalk washed in rose-water, a drachm; and, with a sufficient quantity of honey of roses, make it into a proper consistence.

This is recommended for the thrush, which young children are much subject to, especially with long loosenesses.

Litus detergens.

A detergent Litus.

Take verdegrise, a drachm; honey of roses, an ounce; vinegar, half an ounce; boil to the consumption of the vinegar; and when cold, add powdered burnt alum, two scruples; mastich, frankincense, and myrrh, of each a scruple. Mix.

This is also good for scorbutic gums; and it cleans the mouth, hardens the spongy relaxed glands, and prevents stagnation and erosion by salt sharp humours. Or,

Take *Ægyptiacum*, 3 drachms; honey of roses, half an ounce; burnt alum in fine powder, half a drachm; spirit of vitriol, ten drops. Mix.

This is much readier to be had than the former, because the *Ægyptiacum* is a common shop-medicine; and this is what is generally prescribed for sore mouths, especially when they grow full of white specks; which, if not rubbed well with some such thing, will corrode and spread a great way with heat and pain. This happens frequent-

ly to children, when the pain of breeding teeth brings so much saliva into the mouth, that it is apt to stagnate long enough to erode the glands; and from such cancerous specks as will disappear by rubbing three or four times in a day with this, by a rag tied upon a skewer. It is also a good dressing for foul ulcers, that turn out with fungous lips, which it eats down, and restrains the colluvies of humours.

Lixivium cum Calce.

A Lixivium with Lime.

Take ashes of wormwood, twelve ounces; lime-water, and white wine, of each four pounds. Infuse in a gentle warmth twelve hours; then filter it for use.

This is a notable and good diuretic, and is therefore not only of service in dropsies, and all tendencies thereto, but also in foul scorbutic habits, that deform the skin with blotches; and it will assist even in the drying and cure of old ulcers.

Lixivium Hydropicum.

An Hydropic Lixivium.

Take sifted ashes of broom, and bean-stalks, of each two ounces; juice of parsley, four ounces; white wine, four pounds: make a lixivium; to which add, after it has been cleared down, and poured off fine, salt of tartar, one drachm; saffraas-wood, one ounce; bay-berries, juniper-berries, seeds of daucus, mustard, cummin, and anise, well bruised, of each half an ounce; infuse cold, for two days; then strain, and add comp. horse-radish water, four ounces.

This is much for the same purpose

pose as the former ; but there is no great need of such variety of lixivious salts, for any one will serve as well ; and it is no great matter of what that is made, so that if it be well burnt, and has not imbibed the moisture of the air, which all of them will do with a little time keeping, unless close stopped in a bottle. This is most diuretic and drying ; and is therefore effectual to discharge a corpulent constitution from superfluous humidities, it both increasing the secretions by urine, and insensible perspiration. It may be drank as a diet-drink, four ounces three or four times a-day.

Pilæ Masticatoriæ.

Spitting Balls.

Take mastich, three ounces ; pellitory of Spain, and stavescacre, of each two drachms ; angelica-root, half a drachm ; cubebs and nutmegs, of each one drachm ; euphorbium, half a scruple ; wax, as much as is sufficient to make them into balls or pellets.

These are contrived for chewing in the mouth, to promote spitting ; for, by their hot pungent quality, they prick the fibres, and make them compress the glands, whereby their contents are faster thrown out into the mouth ; and so a drain is promoted of such watery pituitous humours from all such parts of the head, as have any consent therewith. Things of this kind may, therefore, be very convenient for those who require to have such discharges promoted, and cannot comply with smoking tobacco, or for whom that deleterious plant may not be proper. In comas, lethargies, epilepsies, palsies, and in short, all disorders from a moist temperament of the brain, these are to be used with good success.

If the euphorbium be thought too hot in this recipe, it may be left out.

Nodulus Hystericus.

An Hysteric Nodule.

Take castor in fine powder, half a drachm ; asa fœtida, one scruple ; oil of amber, half a scruple. Mix, and tie them up in a piece of thin cherry-coloured silk, pretty loose. Or,

Take galbanum, asa fœtida, and powder of Russia castor, of each one scruple ; volatile sal ammoniac, half a scruple ; oil of amber, ten drops. Mix, *f. a.*

These are very convenient for present use, to hold under the nose of persons in hysteric convulsions ; and they are much better than the scent of a bottle, because much stronger ; but they will not long retain their odour.

Nodulus Cephalicus.

A Cephalic Nodule.

Take species diambraë, half a drachm ; oil of cloves, lavender, and marjoram, of each three drops ; volatile sal ammoniac, one scruple ; rub them together, and tie them up, *f. a.*

This is grateful and refreshing to the head, and may be of service in faintings and depressions of the spirits, by holding it frequently under the nose. After the same manner may be contrived many others of the like kind, and varied according to the different exigencies and liking of the patient ; but they are proper to be prescribed only in acute cases, as when the spirits have been quite worn out by a fever, or wasted by some great evacuation, because they soon decay ; though in such cases they are neat enough, and are often very taking with a person, if neatly

ordered with a handsome coloured silk.

Fanis de Vipera.

Viper Bread.

Take powder of viper's flesh, one ounce; the mealy part of farfaparilla finely powdered, three ounces; fine wheat-flour, one pound; yolk of an egg, a little yest, and as much as is sufficient of milk, to make cakes, or loaves, to be baked in an oven.

This is ordered to be used as common bread, in the worst scorbutic habits, and is reported to prevail even in the leprosy and venereal infections; yet we can have but a small opinion of the viper's flesh dried, because its volatile salt, in which chiefly consists its virtues, is by that means quite lost, or in a great measure. If there be any virtue in the *farfa*, it is certainly best obtained this way; because it has been much suspected whether it gives any to a tincture. As to the restorative properties of the viper, which supply nourishment, there may possibly be somewhat considerable in this; because that consists in such parts as are not so apt to fly away in drying.

There are many other ingredients of different intentions ordered after this manner, by physical writers; but they are so entirely out of the present practice, that they are not worth our retaining here.

Pasta Hypoglotida.

A Paste for Hoarseness.

Take white sugar-candy, four ounces; oil of sweet almonds, one ounce; or as much as is sufficient to make into a paste, by beating them well together in a marble mortar.

This can hardly be made into

a due consistence, without something more adhesive in it. It is chiefly good in a hoarseness, to hold and melt in the mouth frequently; though it may also do good service in many other disorders of the breast, and particularly in asthma, and difficulty of breathing, especially when they proceed from taking cold. It may be used at discretion.

Pasta Hippiatra.

A Paste for Horse Balls.

Take powder of fenugreek, aniseeds, cummin-seeds, carthamus, elcampane, colt's-foot, flower of sulphur, of each three ounces; juice of liquorice, one ounce; oil of cloves and honey, of each eight ounces; Genoa treacle, twelve ounces; oil of aniseed, one ounce. Mix all together, and with one pound and a half of wheat-meal, or as much as is sufficient, make it into a paste, which roll into balls, about as big as a common wash-ball.

There are many recipes abroad of this kind; and the name of the late celebrated Dr. Radcliff does honour to one of them; but there are none we have ever met with of more general use than this, in coughs and colds: one ball may be dissolved in water, or new warm malt-wort, which is much better, and given to a horse to drink every day, for twelve or fifteen days together, or as long as there appears occasion.

Turundæ Odontalgicæ.

Pellets for the Tooth-Ach.

Take asa foetida, eight grains; camphor, dragon's blood, of each one grain; oil of pepper, two drops.

Dr. Fuller gives this; but it seems to be a very ungrateful medicine

dicine for such an use, as well as unlikely to do any service, unless by the heat of the oil of pepper; which, by the way too, is hardly ever made, and therefore we must prefer either of the following.

Take mastich, one scruple; camphor and opium, of each two grains; oil of origany, one drop. Make them into a pellet. Or,

Take frankincense and Matthews's pill, of each ten grains, and with oil of cloves, one drop, make them into a pellet.

Either of these stopped into the hollow of an aching tooth, or between that and the next, will often procure ease. But sometimes, where the pain is occasioned only by the chill air passing through a small hole to the bottom of the tooth, which often happens, then stopping it with a little mastich, or olibanum, is as good as any thing; as likewise is the storax pill, if its consistence be good. Where the pains arise from a flux of sharp watery humours upon those parts, they are sometimes drawn away, by holding a piece of pellitory of Spain, or stavesacre in the mouth; which, by its stimulating heat, draws it out of the glands, and at last blunts the acute sense of the nerves.

Pisa Lutea.

Yellow Pease.

Take yellow oaker, half an ounce; Florentine orris-root, two drachms; yellow bees-wax, one ounce; Venice turpentine, as much as is sufficient to make into a hard mass, which must be formed into pease.

These are intended to promote the running of issues when they

grow dryish; because they draw more than the common white pease. They are also of service in lessening some inflammations which are apt to attend them, by giving vent to the humours.

Pisa Rubra.

Red Pease.

Take vermillion, half an ounce; hermodactyls in fine powder, two drachms; yellow bees-wax, six drachms; Venice turpentine, as much as is sufficient to make into a consistence for pease.

These draw more than the former; yet moderately enough.

Pisa Virida.

Green Pease.

Take verdigrise, white heliebore, of each two ounces; cantharides, one drachm; root of Florentine orris, one drachm and a half; yellow bees-wax, six drachms; Venice turpentine as much as is sufficient to make them into pease.

These are yet much stronger, and will make way of themselves without cutting, and are therefore not to be used for any other purpose.

If an issue is almost dried up, it is likewise sometimes set running again by putting a piece of epispastic plaster into it, instead of a pea; and rubbing a common pea with basilicon or *Unguentum arcae*, will also frequently answer the same end.

Lapis de Goa.

Goa-Stone.

Take hyacinths, topaz, sapphires, rubies, and pearls, of each an ounce; emeralds, half an ounce; oriental bezoar, white and red coral, of each two ounces; must

musk and ambergrise, of each two drachms ; leaves of gold, N^o 40. Let all be levigated into a fine impalpable powder, and with rose-water made into a paste, which is to be formed in long or oval balls, and polished.

This is generally brought to us from India, but whether exactly made according to this prescription, is not certain. The chief reason why that of our own make is not so much in esteem, is because we have not that skill in the polish, and are more apt to admire what comes a great way ; besides, the bezoar bears such a price here, that there is nothing to be saved by making it. It passes for an extraordinary cordial, and is also given in fevers as an alexipharmic ; but such qualities can proceed only from the sweets, which herein are in large quantities. The dose is from five grains to a scruple, or half a drachm. Many grate a little of it into punch, which the sweets make very grateful, and of a pleasant flavour ; but it will

much sooner fuddle, and be longer before its influence wears off again for it.

Tinctura Rosarum.

Tincture of Roses.

Take red rose buds dried, with the whites cut off, half an ounce ; infuse them in two pounds of boiling water, in the manner of tea, for three hours, in an earthen or glass vessel ; then drop in thirty drops of oil of vitriol ; strain out the liquor, and sweeten it with three ounces of fine loaf-sugar for use.

When haste will not permit it to infuse so long as here directed, more roses may be added, that may make it as strong as if it had stood longer.

This is very proper, and makes a very grateful julep, in all cases that require coolers and subastringents ; and there is nothing better suited for drinking after boles or electaries of the bark ; it likewise makes a very good gargle.

Directions for Prescriptions.

AFTER a physician is supplied with necessary remedies, there is required some care and consideration to manage them to the best advantage, both for the ease of the patient, and answering the intentions of cure.

In all chronic cases, medicines are to be contrived as near to a diet as can be, and therefore the common drinks and foods are to be medicated as far as they will admit and the case requires ; what medicinal forms are requisite

should be the most convenient for taking, and ordered at times best suited to the condition of living and conveniency of the patient ; pills therefore, electaries, tinctures, or elixirs, are the most likely forms, because they will keep, and may be so ordered in taking as to be of very little trouble ; whereas boles or draughts, where there is a long continuance required, make such a formidable shew, that very few will have patience to go through the course.

But

But in acute cases, which are generally dangerous, there is required no such regard, but all assistances must be called in that can be had, according to the exigency of the case; and as medicines of efficacy are concerned herein, they are most safely distributed into boles or draughts, that the patient may not be trusted to guess-work, but the dose may be ascertained to the greatest exactness, and especially where opiates are used; here no regard, or very little, is to be had to diet, but care taken to set all the helps to co-operate together, so that they interfere not with each other; thus a bole or a powder may be given every three, four, or six hours, with a draught, julep, or any other liquid form after it; and herein may be dropt spirits, tinctures, &c. of the like intention, and also into their common drink; the night doses, or others if necessary, may be joined with an opiate; and in the intervals, where the aggravations of symptoms require, may be repeated the julep with suitable drops, as usual: externals may be ordered at the same time; and if blisters, because they often occasion stranguries and heat of urine, emulsions, notwithstanding all that has been given before, may come in for a common drink.

What is farther necessary to add concerning extemporaneous prescription may be contained in a little compass: all that may be said concerning an uniformity, either in the intention, in the texture, or in the consistence of a medicine, being as necessary here as in the more laboured prescriptions; the chief therefore of what

we have to attend to in this part is,

1. To contrive as many forms to go on together, as the exigencies of any case may require, in such manner that they interfere not with one another. Thus in acute cases, where helps are wanted from all quarters, boles, powders, or draughts may be directed at certain distances, at their intervals of taking supplied with juleps, apozems, emulsions, and the like, as circumstances may call for them. But in chronic cases, especially where patients are liable to go about their affairs, all the means ought to be made as easy and efficacious as possible, else it is a great chance but that a croud of medicines, or their irksomeness to take, tires the patient before any benefit can be received from them; so that in some circumstances it may be eligible to do little, rather than nothing at all. The circumstances likewise of persons are no mean consideration, so that where those are narrow, not only a few, but the cheapest and most efficacious medicines should be contrived. In short, one very necessary caution is, never to make a remedy worse than a disease, which in some circumstances may happen. But with all the necessary good husbandry, there is one thing sometimes practised, which for many reasons is blameable, and that is, the putting of powders into draughts or juleps, especially the Gascoign's powder; for such management not only renders the mixture very unsightly, but makes it impossible for an apothecary to comply with it, but to his loss.

2. Another thing worth regard
is,

is, always, as much as possible, to disguise known medicines, both by prescribing them in terms the least commonly known, and reducing them into forms as different as possible from what a patient hath been accustomed to discover them in: without this care the best prescriptions are frequently lost by a prejudice, and hence sometimes happens a total refusal of that upon which most stress was laid; besides, it cannot have escaped every one's observation, how much the reputation of a cure hath been lost by divulging the means by which it was effected. Something might be said likewise as to the injuries hence arising to the apothecary, whose attendance requires more than the common profits of trade, which every patient hath not the generosity to allow for, when they know the things prescribed.

3. Another consideration, and the last I shall take notice of on this occasion, is, that all extemporaneous medicines be contrived, not only with all the elegance and pleasantness possible, but also into the smallest doses they are capable of. Draughts to grown persons ought never to exceed four ounces, and to be seldom above three; and boles ought hardly ever to weigh above two drachms; and of the rest proportionably.

But the most general and necessary rule in all cases is, to answer the end by as few medicines as possible; and such practice will always procure the best reputation amongst those whose applause is most valuable, and best support the dignity of the profession, and secure the satisfaction of a good conscience.

A P P E N D I X.

Wherein is contained,

An Account of the Preparation, Nature, &c. of Tar-Water ; Mrs. Stevens's Medicine for the Stone, &c. being not properly reducible to any of the preceding Classes of this Work.

Aqua Picis Liquidæ.

Tar-Water.

POUR a gallon of cold water on a quart of tar ; stir and mix them thoroughly with a ladle, or flat stick, the space of three or four minutes ; after which the vessel must stand forty-eight hours, that the tar may have time to subside ; when the clear water is to be poured off and kept covered for use ; no more being made from the same tar, which may serve for common purposes.

This is the recipe of the bishop of Cloyne, who first introduced tar-water into common use, given in his *Siris*, a most abstruse and learned treatise, wrote in order to recommend it as a remedy in almost every disorder incident to the human constitution ; and which occasioned it to be as generally taken. That tar-water is capable of producing changes in the habit of those who are not accustomed to it, is unquestionable ; for it is frequently found in scorbutic cases to throw out a copious eruption on the skin ; thereby relieving other symptoms which attended the re-

tention of the humor ; and in some instances, it has even removed eruptions : it has been observed likewise to produce regular fits of the gout in those who before had only slight moving pains ; while others, who have had regular fits at first, have found them as well multiplied as aggravated by its use. In nervous cases several persons have for some time received benefit from it ; but afterwards, have had returns of their disorders, against which it proved then ineffectual. It appears therefore, on the whole, that, like other stimulating medicines, where a temporary increase of the *vis vitæ* is wanting, in order to any critical discharge, it produces the desired effects ; but where such discharge is not the proper period of the distemper, it operates only palliatively ; and, if taken for a long continuance, becomes habitual to the constitution, and, in common with other bodies, which act by their stimuli, loses its power of exciting an extraordinary force in the circulation ; and becomes itself perhaps necessary to the support of the ordinary one. On this last account there may be the same reason to avoid a frequent

frequent or continued use of it, as of opium, spirituous liquors, and other substances which produce their effects by acting on the nervous system. Though this use of tar is so lately introduced with the pretensions of an invention; yet a medicine very nearly allied to it was formerly taken here in scorbutic cases, and is still much esteemed in the same intentions in the northern parts of Europe: this is a decoction of the raspings of the wood of the fir-tree, which, most probably, yields an extract very little different from what is thus obtained from tar. It has been a matter of dispute, what kind of substance is separated by the water from the tar, and by what quality it operates, and produces its medicinal effects. It appears, on examination, that the tar imparts a slight acid to the water, which acid is certainly of a saline nature; and an ethereal oil that seems to be combined with the water by means of this salt; as without such a medium no oils are commiscible with water. In this oil, and not in the acid, it has been idly imagined, consists mostly its medicinal quality; which the nature of its operation, being to quicken and fill the pulse by increasing the *vis vitæ*, evidently shews: effects quite contrary to those produced by acids. And indeed the minute quantity of the acid, far too small to work such considerable changes in the habit, as have followed the use of this medicine, is a no less obvious proof of the truth of this opinion. There have been, since the prevailing fondness for tar-water, several other preparations offered to the public; the publishers of which, like others engaged in such undertakings, have not

been sparing of high pretensions of their medicinal merit: particularly one vended under the name of acid juice of tar; which is said to have had for its inventor a person very capable in other matters, that lie within his proper province. But as the pretended excellence of his preparation is placed in collecting the acid, which, as I observed before, is not the part wherein the medicinal power of tar-water resides, but only the medium by which the really efficacious substance is separated by the water from the tar, either his acid juice is not so perfectly freed from the other part of the tar as he pretends, or he has refined away the medicine instead of improving it. As to the other preparations, they are neither in their nature, or the regard of the public, considerable enough to render them worthy a comment. Besides the above recipe for tar-water, the bishop has more lately recommended the following, for the convenience of travellers, or such others as may not have an opportunity of preparing it each time it is to be taken.

*Aqua Picis Liquidæ fortior,
in Usum Viatorum, &c.*

Strong Tar-Water for the
Use of Travellers, &c.

Take of tar, and water, each one quart, stir them well together for twenty minutes, then let them settle, and pour off the clear water.

As there is but little to be poured off here, this preparation may be improved by the introduction of filtering, in order to clarify that part of the water remaining, after all that can be poured off clear has been obtained, which in this case will

will be a considerable part. This tar-water has four times the strength of the other, and must therefore be mixed when taken, with three times its quantity of water, if it is desired to be of the same strength with that. The dose of tar-water the bishop recommends in common cases is half a pint, to be taken morning and night on an empty stomach.

N. B. The late improvement by Mr. Smith, Apothecary, in Tavistock-street, Covent-garden, excels every other mode of preparing tar-water. With his Chymical Essence of Tar is given ample directions for its preparation, use, &c.

*Lithontripticum Joannæ
Stephens.*

*Mrs. Stephens's Medicine for
the Stone.*

Calcine egg-shells in a crucible eight or ten hours, with a strong fire; then expose them to a dry air a month or two, till the greatest part falls into a subtle powder, which must be separated from the grosser and less perfectly calcined part by a fine sieve; and preserved for use in a glass phial well secured from the air.

Of the egg-shells calcined and half flaked by this method, take two scruples, and a half, or one drachm, three times every day, in any proper vehicle; drinking after it half a pint (*id est*, one third part) of the following decoction.

Take of Alicant soap, two ounces; slice the soap, and dissolve it by boiling, in such a quantity of water as will produce one pint and a half of decoction; strain it, and sweeten it to your palate with

honey or sugar. The use of copper or brass vessels must be avoided in preparing the decoction, otherwise the metal, being thereby corroded, may produce a violent sickness in the patient.

This is the original recipe (except that about a sixth part of snails, calcined to blackness, was added to the powder; and chamomile, sweet fennel, or some such vegetables, of strong flavour were boiled in the decoction; which being entirely beside the intention, and most probably added at first only to disguise the really efficacious ingredients, have been since universally omitted) as it was published by Mrs. Stevens, who had five thousand pounds given her by Act of Parliament for it. But a form much more expedient, both to those who prepare and take the medicine, and, indeed, much better suited to the intention, has been since published by Dr. Hartley, in a treatise wrote by him on this subject; which is as follows:

*Lithontripticum Joannæ Stephens
forma commodiore secundum D. Hartley.*

*Mrs. Stevens's Medicine according to the improved
Recipe given by Dr.
Hartley.*

Take of Alicant soap, eight ounces; quick-lime powdered and sifted, one ounce; fixed alkaline salt, one drachm; slice the soap; mix it well with the lime and salt; and beat the whole in a mortar into a soft paste; adding as much water as is thereto necessary; then form this paste into rolls two fingers

gers breadth long, of the weight of four scruples, and a little pointed at each end; let the patient take every day from eighteen or more to twenty-four of these, *ad os*, from three to four ounces of the paste, the roll being laid lengthways upon the tongue, and a little water taken into the mouth with each, by which means they may be swallowed with very little trouble.

The intervals betwixt each dose may be three, four, or five hours, as shall be most convenient; only taking care neither to load the stomach, nor to produce a thirst, by swallowing too many together. These rolls must be kept in a cold and moist place; lest, growing hard, they prove uneasy to the stomach and pass the intestines whole, or only dissolved in part. But to prevent this, where there may be occasion to keep them longer, it is proper to prepare them either with a milder lime, or a less quantity of such as is pungent; that, in case they grow too hard, they may bear to be again beat up with a proper quantity of water and fixed alkaline salts.

To these directions for the best method of preparing and administering this medicine, which we have borrowed from the ingenious pamphlet above mentioned, I shall likewise subjoin such others as the author has therein given, respecting the accommodation of the medicine to the condition of the patient: but I shall first give some account of what this medicine is pretended to effect; and on what foundation such pretensions are raised: and in this I must still use the authority of the above pamphlet: the Doctor having there given a very fair and succinct his-

tory of some of the most material cases that have occurred in the use of it. It is offered to the public as a remedy against the stone, as being capable of dissolving any stones either in the bladder or kidney, provided it be taken in a proper quantity, and for a due continuance. The supposition of such a power is derived from these facts; from the cessation or mitigation of the symptoms which is consequent to the taking it; from the report of the catheter, by whose assistance stones have been perceived before the use of the medicine, which could not be felt afterwards; from the appearance of stones taken out of dead persons who had taken the medicine, such stones bearing the supposed marks of lithontriptic power; from the qualities of urine thus medicated; and its actual power of dissolving stones digested in it out of the body. These are the facts as drawn up by Dr. Hartley; from whence a lithontriptic power is concluded to be in this medicine: and that there is such in some degree can scarcely be doubted; as well from the broken parts of stones which have been voided after its use, as from the alteration that appears to be made by it in the texture and colour of the stones. But whether it can dissolve such as are of a harder and more equal consistence, or so break them as to cause their being voided, is far from being clear. Since, according to the relations he has given us, the cessation of the symptoms has in several cases happened where the stone has been found to remain; and the report of the catheter is not to be depended upon; as not only common experience, but his own account evinces,

evinces. And as to the instances of the mollified stones taken out of dead persons, they lend not the least argument for it; since even a single instance is wanting, where a stone having been perceived before the use of the medicine, none was found in the bladder when opened: and indeed this change of the texture of the stone rather weakens what the use of the catheter had produced in favour of the opinion; as it accounts for the stones not being perceived after the medicine had been taken, that were felt before. As to the effects of medicated urine out of the body, all inference thence is very uncertain; for it is extremely evident, that a very considerable change in its properties happens to all urine soon after it is discharged; and qualities are then acquired by it, of which it appears utterly incapable while in the living body. The power of the medicine of loosening and separating the less cohering parts of stones, and of rendering their texture soft and superficies smooth, of the effecting which there is evident proof; together with the great probability that it is capable of dissolving some stones; are however fully sufficient to recommend the use of it, and so constitute it extremely beneficial to such who, under the most excruciating state of pain, are denied all other means and prospect of relief; as is more particularly the case of those afflicted with the stone in the kidneys, where no practicable operation can remove the evil, even from those who have sufficient resolution to submit to be cut.

The three varying doses of the medicine above given are adapted to the supposed differences there

may be in the condition of the patient. The middle dose, that is, two drachms and a half of the powder, and two ounces and a half of the soap, each day, is proper for persons of a middle age and size, under the common circumstances of health, &c. But where a weakness of the stomach, or sharp pains in the urinary passages occur, it is better to give the least dose; and in some cases to use a weaker lime; that is, either such as has suffered a shorter calcination, or such as has been longer exposed to the air: and the same holds good in respect of persons of a very great age, in whom the stones are much more easily dissolved. Boys and very young persons ought to take as large a quantity as their stomach can bear; it being clear from experience, that stones in such subjects resist much more the power of the medicine. The same rule of proportion is to be observed also when the medicine according to Dr. Hartley's alteration is used; the least quantity to be taken each day being eighteen rolls, the middle one twenty-one, and the greatest twenty-four.

The above proportion betwixt the lime or calcined egg-shells and the soap, viz. one to eight, is such as from experience is found to agree with most constitutions; as neither producing a too great costiveness or looseness; but where, as it sometimes may, it shall happen otherwise, the respective proportion of the one to the other is to be varied. If a costiveness ensues, the quantity of lime is to be lessened; if a looseness, the soap is to be diminished; and what loss the medicine may suffer in quantity from the diminished proportion of the one ingredient,

may be made up by an equivalent enlargement of the other: and the medicine by means of the opposition in the qualities of the two kinds of ingredients may thus be accommodated to every state of the intestines. But if any difficulty should occur in this, astringent or laxative medicines, in decoctions or other convenient forms, may be called in aid, and this common proportion preserved. If notwithstanding the use of astringents and an increased proportion of lime, by those in whom that disposition is found, a continued looseness should still prevail, the assistance of opium must be necessarily taken, till a change is brought about; for vainly are the lithontriptic effects of the medicine hoped for, while it thus forces its passage through the intestines, and finds a shorter exit than by the kidneys and bladder.

In respect of the diet proper to persons who take this medicine, it is only necessary that they should eat moderately, and abstain carefully from acids, and salts, or meats seasoned with salts or spices; from the first, because acids of course destroy the lithontriptic power of the medicine, which depends on its alkaline quality; and from salt, &c. because they provoke thirst, and thereby occasioning a greater quantity of fluid to be drank, dilute the medicated urine, and thence both diminish the force, and shorten the time of its action; and for the same reason it is proper to avoid much exercise, which is apt to occasion persons troubled with the stone to make water frequently.

It is not unusual for persons, after they have taken the medicine for some days, to find their pains

in the urinary passages increased, in which case they must avoid motion, and indulge in that posture of the body which they find gives them ease; but if they fail of relief in this, and find their pains extremely acute, all the anti-inflammatory means must be used, and opiates taken, on which, indeed, the greatest reliance is to be had. But it is above all other things necessary to caution the patient, that he should not by this increase of his pains be deterred from persevering in taking the medicine: for if the stone, as it generally becomes rough and of an unequal surface, again acquire its former hardness, which necessarily happens by the change of the urine to its former state, from the omission of the medicine, most excessive pains of course result; of the fatal consequences of which examples have been seen: while on the contrary it has been observed, that those, who under these circumstances persisted in the use of the medicine, have been in a short time entirely freed from these pains, even though very rough and large stones have remained in the bladder; and have even been able to use exercise without inconvenience. These are all the rules experience has hitherto shewn to be necessary to be observed in taking this medicine: the innocent nature thereof, no clear instances having hitherto appeared of its producing any ill effects in what ever quantity it has been taken, giving a great latitude in the use of it; and leaving persons afflicted with the stone no objection against the taking it, but the trouble and tediousness which arise from the length of time, and great quantity, in which it must be taken.

Dr. Chittick's Secret for the Stone.

Take salt of tartar, eight ounces; oyster-shell, quick-lime, four ounces; soft spring water, two pints; pour the water boiling hot upon the salt and lime, let them stand twenty-four hours, now and then shaking them, then filter for use.

It is owing to the industry of the ingenious Mr. Alexander Blackrie, that this secret is ascertained as to its nature; and to his skilful experiments and remarks that we are favoured with the above composition, so exactly corresponding in every punctilio with the Doctor's; and farther still, that it is proved to be the same, both in nature, and kind of preparation. The tartar from whence the salt is obtained, should be recently and well calcined, even till it acquires a pale blue colour: the shells should be fresh calcined, and that to a perfect and equal whiteness. The ley should be made immediately after the salt is obtained, and the shells calcined, and kept very close from the air in a bottle with a glass stopper.

The Doctor orders as a vehicle for this medicine, two pounds of the crag-end of a neck of veal, to be boiled in five quarts of water to three quarts, freed from all fat and other impurities. Three pints of this broth when medicated, is to be taken every day, one pint in the morning fasting, by a little at a time, so as to be an hour in taking the whole, and the patient must fast two hours afterwards; the second pint at noon; and the third pint in the evening in like manner, fasting two hours after each.

When taking this medicine, he prohibits all salt meats, and even salt itself with the meat that is allowed, butter, cream, milk except it is skimmed, cheese, fish, eggs, sauces of all kinds, tarts, pastry, all vegetables except turnips, potatoes, and boiled onions, and even the potatoes are sparingly allowed. As to drinks he forbids all acids, and all that tends to acidity, as wine, beer, cyder, perry, and all fermented liquors, and only allows water with a little brandy or rum.

He permits the patient to eat the lean parts of beef, mutton, veal, ducks, chickens, and rabbits, without any sauce but their own gravy, which must be carefully separated from the fat.

Such exercises are to be used as produce no pain, and the medicine must be continued several months before any benefit is to be expected.

In all gravelly cases this medicine may be pronounced infallible; and in cases of the stone, if it fails to dissolve the concrete, it makes it smooth, so proves an excellent and desirable palliative.

In a recent gravelly case, where the concretions are but small, give from 30 to 40 drops of this ley, two or three times a-day, in half a pint of the broth above named, or any other soft mucilaginous vehicle, and continue this as long as there is any appearance of fabulous matter subsiding in the urine. —If after a severe fit of the gravel, a small calculus is transmitted from the kidneys to the bladder, in order to promote its solution and expulsion as soon as possible, a larger quantity may be given, a tea spoonful two or three times a-day, remembering to regulate the dose according to its effects on

the patient.—In case of a stone being lodged in the urinary bladder (for those in the gall bladder are not affected by this medicine) the dose should be gradually augmented, and with each pint of the broth, as much of the ley is to be mixed, as the constitution will admit of. In giving such acrid medicines, particular attention must be had to the sensations they occasion, and effects they produce: if their effects be painful, lessen the dose; if no degree of uneasiness arises, increase it, as some degree of painful irritation is necessary to effect the solution of such hard substances. Many who have begun with one tea spoonful three times a-day, have gradually increased the dose to half an ounce three times a-day.

It should be noticed that, when a stone is passing from the kidney, is impacted, and firmly adheres in the ureter, occasioning violent pains in the loins, and in the lower belly, like the colic, with bilious vomitings, obstinate costiveness, strangury, tenesmus, &c. this and all other irritating medicines ought carefully to be avoided, till the severity of the fit is pretty well over, as they may occasion painful strictures, ruptures of blood-vessels, inflammations, &c. The same caution will be equally necessary if any other kind of symptoms occur that forbid the present use of whatever irritates.

It is objected to by some, that so large a quantity of this medicine as is necessary to dissolve the calculus in the bladder, will be productive of other diseases, some of which may be as fatal as that which it is intended to relieve: but numberless experiments de-

monstrate that those who take large quantities for these diseases, viz. the gravel and stone, are relieved also of other complaints to which they were before subject: and no instances have ever occurred, where a prudent use has produced disagreeable effects.

Magnesia Alba.

Earths are either, 1st. Those which dissolve readily in all the acids except the vitriolic; as the mineral and animal calcareous earths, and the earth of bones and horns. 2dly. Those which dissolve in all the acids, as the magnesia alba, and the aluminous earth. And 3dly. The earths which do not dissolve in any of the acids, as the clayey, the crystalline, the gypseous, and the talcky earths.

The magnesia is said by some, not to differ from calcined hartshorn, or any other of the simple absorbent earths. But, when duly prepared, it is a fine light white earth, perfectly void of all smell and taste, soluble in all acids into a bitter purgative liquor; and, it is not convertible by fire into quick lime. It dissolves freely and abundantly in the vitriolic acid, which dissolves other earths but sparingly; combined with this acid, it forms a salt very easily soluble in water, while the common absorbent earths form with the same acid almost insipid concretes that very difficultly dissolve. Solutions of magnesia, in all acids, are bitter and purgative, while those of the other earths are more or less austere and astringent. Hence it appears, that magnesia differs specifically from the other absorbent earths.

E. D. *Magnesia Alba*
White Magnesia.

Take of the bitter purging salt, and pearl ashes, each an equal quantity. Dissolve them separately in double their quantity of hot water; let the fæces subside, then mix the clear liquors, and immediately after add the mixture to eight times that quantity of boiling water. Boil the whole a little while, stirring it well together; which done, let it rest quietly untill the heat is diminished, then strain through a clean linnen cloth; the magnesia will remain behind on the cloth, pure and free from any saline taste.

This medicine has been some time in use in Germany, and is highly extolled by Hoffman: on whose authority it had been received into practice here by some particular persons; but very confinedly, till the knowledge of it, and its supposed excellence, was made general by the author of a medicinal pamphlet, called, An Essay upon Nursing, and the Management of Children, &c. who therein gives it extraordinary praises; and, having in most instances shown great judgment and knowledge of the subject he treated of, has occasioned this medicine to become much regarded. I cannot therefore more properly go about to explain its reputed virtues, than by quoting the passage wherein he recommends its use:

“As I have said that the first and general cause of most of the diseases infants are liable to, is the acid corruption of their food; it may not be amiss just to mention an easy and certain remedy, or rather preventive, if given timely, at the first appearance of predo-

minating acid; which is very obvious from the green stools, gripes, and purgings occasioned by it. The common method, when these symptoms appear, is to give the pearl julep, crab's eyes, and the testaceous powders, which, though they do absorb the acidities, have this inconvenience in their effect, that they are apt to lodge in the body, and bring on a costiveness, very detrimental to infants, and therefore require a little manna, or some gentle purge to be given frequently to carry them off. Instead of these, I would recommend a certain fine insipid powder, called *Magnesia Alba*, which at the same time that it corrects and sweetens all fournesses, rather more effectually than the testaceous powders, is likewise a lenient purgative, and keeps the body gently open. This is the only alkaline purge I know of, and which our Dispensatories have long wanted. I could wish it was more universally received among us, and think it well deserves the rank in our books of Pharmacy, which it has already in some foreign ones. I have taken it myself, and given it to others for the heart-burn, and find it to be the best and most effectual remedy for that complaint. It may be given to children from one to two drachms a-day, a little at a time, in all their food, till the acidities be quite overcome, and the concomitant symptoms disappear entirely. I have often given it with good and great effect, even when the children have been far gone in diseases first brought on by prevailing acid.”

This is the account given of it by the above mentioned ingenious writer; but whether it really has such peculiar properties as he inti-

mates, may be reasonably doubted. That it has not a general purgative quality, even in respect of children, is evident from experience; nor has it such perhaps in any case, except where, meeting with a sufficient quantity of acid in the intestines, it is again converted thereby into a saline state: for it is the obvious property of earths; while in their simple state, rather to induce a costiveness than promote a catharsis, as he himself above acknowledges.

Mr. Henry of Manchester gives the following process for preparing magnesia.

“ Dissolve any quantity of the sal cath. amar. in its own weight of water; filter the liquor, and add to it, by degrees, a filtrated solution of pearl ashes in an equal quantity of water, stirring them gently until the mixed liquors have acquired the appearance of a complete coagulation, then cease from adding any more of the alkaline lixivium; and having diluted the precipitate, and mixed it intimately with a small quantity of hot water, immediately throw the mixture into a large vessel of boiling water. Keep it boiling for a quarter of an hour, then take it out, and put it into glazed earthen vessels. As soon as the powder has subsided, and before the water be quite cold, pour it off, and add a fresh quantity of boiling water: repeat these ablutions with several parcels of hot water, till the liquor has intirely lost its saline taste. Then let it be so agitated as to suspend the finer parts of the powder, in which state decant it into other vessels; and having separated the water from the magnesia by inclination, put it on large chalk-stones, till a consider-

able part of the humidity be absorbed. Then wrap it up in sheets of white paper, and dry it before the fire. Pour hot water on the remaining powder, stir it, decant it in its turbid state, and separate the magnesia from the water as before. Thus the whole, or most of it, will be reduced to an equal degree of fineness.

“ The separation of the magnesia will be promoted by heating the saline lixivium before they are mixed; and the larger the quantity of water into which the precipitated powder is cast, the more speedily and perfectly will the vitriolated tartar, which is formed by the alkali of the sal cathart. be washed off. Dr. Black directs that three or four times the quantity of water, to that of the solutions, should be added; but this I have found greatly insufficient. The neutral salt should be washed off as quickly as possible; otherwise, as he justly observes, by allowing the mixture to stand for some time, the powder concretes into minute grains: these concretions cannot be redissolved by any washing, however long continued. His intention in boiling the mixture is much better answered, by adding it to the water when in a state of ebullition; and once boiling in this manner is more effectual than a dozen washings in hot water.

“ Much depends on the purity of the water used in the process. If it be hard pump-water, the fenites with which it is impregnated will be decomposed, and the calcareous earth be deposited, after boiling; which mixing with the magnesia will render it impure, gritty, and discoloured. Rain water collected free from impurities,

impurities, or clear river water, are most eligible; but if the situation of the operator does not permit him to procure these in a proper state, he should either use distilled water, which has been kept until the empyreuma is gone off, or at least such pump water as is free from any calcareous or saline impregnation. When poured on the magnesia it should be strained through a thick linnen cloth, so as to intercept any accidental impurities, which it may acquire in heating.

The drying should be performed with expedition. To this end, the chalk stones should be exposed to a moderate degree of heat; and when they have been employed two or three times, should be dried before a fresh quantity of the magnesia is put on them. Cleanliness should be particularly attended to, through the whole process; and the vessels ought to be carefully covered, that no dust may enter.

“A large copper brewing-pan may be safely used to boil the magnesia in; for as the acid is perfectly neutralized, there can be no danger of its quitting the alkali, to which it hath a greater affinity than to the metal.”

Mr. Henry observes, in his Experiments and Observations, that calcined magnesia is a better medium for making tinctures of resinous substances, for present use, than the calx viva as recommended by Dr. Macbride,

Magnesia Usta. Calcined Magnesia.

Put the magnesia into a crucible, which place in the fire, and continue in a red heat for two hours.

Linimentum Ophthalmicum.

Hans Sloane, Eq. Ait.

Sir Hans Sloane's Liniment for sore Eyes.

Take of prepared tatty, one ounce; of lapis hæmatites prepared, two scruples; of the best aloes prepared, twelve grains; of prepared pearl, four grains. Put them into a porphyry, or marble mortar, and rub them with a pestle of the same stone very carefully, with a sufficient quantity of viper's grease, or fat, to make a liniment; to be used daily, morning or evening, or both, according to the conveniency of the patient, as hereafter directed.

This recipe was a long time ago purchased by Sir *Hans Sloane*, of a person who had it from Dr. *Rugeley*, and since published by him, in a pamphlet wrote for that end, wherein he highly extols it; and thence occasioned it to meet with great regard from many persons who are influenced by the authority of eminent names. But in order to give a just notion of what he attributes to it, and the method of its use, I shall here quote a part of his pamphlet:

“The method, which has best succeeded with me in facilitating the efficacious use of this liniment, is to bleed, and blister in the neck and behind the ears, in order to draw off the humours from the eyes; and afterwards, according to the degree of the inflammation, or acrimony of the juices, to make a drain by issues between the shoulders, or a perpetual blister. And for washing the eyes, I generally recommend spring-water; which I think preferable to any

spirituous lotion, whether simple or compound. And the best inward medicines I have experienced to be conserve of rosemary flowers; antiepileptic powders, such as pulvis ad gutteturam; betony, sage, rosemary, eyebright, wild valerian root, castor, &c. washed down with a tea made of the same ingredients; as also drops of spirit. *lavedulæ composit.* and *sal volat. oleos.*

If the inflammation returns, drawing about six ounces of blood from the temples by leeches, or cupping on the shoulders, is very proper.

The liniment is to be applied with a small hair pencil, the eye winking or a little opened.

In prosecuting the cure of sore eyes, I have been sometimes surprised by want of success; till at length I found, that the cause was a lurking intermitting fever, every fit of which affected the eyes, and rendered their disorder obstinate; wherefore, upon taking off the fever by a proper use of the bark, the cure has been effectually performed.

This medicine has cured many, whose eyes were covered with opaque films, and cicatrices left by inflammations and apostems of the cornea; which, though they happen to persons of all conditions, yet are more common among the poorer sort of people: many of sight, as to be under a necessity of being led to me; and after some time could perfectly well find their way without a guide, to my great satisfaction. And it is not only very beneficial in such cases, but also where there is an excessive pain in the eyes, shooting thence up into the head: as I particularly remember in a great lady,

who had such pains in her fore eyes, and head, that she had, when I first saw her, taken about fifty drops of laudanum thrice in twenty-four hours, if I remember right; of which complaints she and many others have been relieved by this medicine, without the help of any opiate.

Monsieur Anisson, who was sent thither with the Duke d'Aumont, commissioner for settling a treaty of commerce with England, brought me recommendatory letters from some friends in France. I observed a great soreness and weakness in his eyes: of which the application of my medicine very soon cured him. Whereupon he assured me, that he would procure me from the king his master any reward I should think fit to ask for the secret; he being accustomed to oblige his subjects that way: but I answered him, that I was then bound by a promise to conceal it.

In respect to the real merit of this remedy (notwithstanding Sir Hans's account of it) if we examine its composition, we shall find it not to differ from the common liniments used in that intention; except in the substituting viper's fat instead of fresh butter or hog's lard, and in the adding a small quantity of aloes and prepared pearls, which seem very little to the purpose; and indeed the use of viper's fat is a change made in it by himself, hog's lard supplying the place thereof in the original recipe of Dr. Rugeley, and possessing the same qualities; the supposition of any specific power in the fat of vipers, having been introduced without any foundation on facts or just analogy. To this fat used simply, Sir Hans

Hans gives nevertheless the same efficacy with the compound medicine ; though from his own account it appears, that in Dr. Rugeley's hands the same cures were effected by it while made with hog's lard ; whence it seems to be in this state, according to fir Hans, a combination of two very powerful medicines ; and yet (what is very extraordinary) in his application of it, he, by his own relation, calls into his assistance all the means medical practice has hitherto employed in cases of this kind ; as bleeding, cupping, blistering,

issues, &c. so that either some of these methods must do very little proportionably to the trouble they give, or his medicine less, to render both necessary. Upon the whole, therefore, from the consideration of his account of particulars, notwithstanding the general praises he gives it, we may conclude this medicine to vary in nothing from those of the same kind commonly used, but in the addition of some insignificant ingredients, and the substitution of a dearer in the place of one of less price, and more easily procured.

The principal Medicines used by the late Dr. Ward.

Method of preparing Antimony, for the Pill and Drop.

PROVIDE yourself with an earthen unglazed pan, that will hold three or four quarts ; set it on a naked fire, and have in readiness, of the finest and purest crude antimony, as much as you please (that which appears in long shining needles, and is the easiest powdered, is the best ; being most free from metallic, or other heterogeneous bodies ;) powder it indifferently fine ; put ten or twelve ounces into your pan, stirring it continually with an iron spatula, and increasing your fire till it sends forth white fumes, and a flame like burning brimstone : continue that degree of fire, continually stirring, till it burns or fumes no more ; but is become a grey or ash-coloured powder. If it should melt, and run into lumps, in the beginning of your operation, you must take it out of your pan, and pound it again ; putting it in

again, and stirring as before, till it be thoroughly calcined. Then put in four ounces more of your crude matter ; proceeding as before, and continuing so to do, till you have as much as you desire. By this method you will calcine your antimony with much less labour and time, than in doing it altogether, as is usual : for, by putting your crude antimony to your calcined, its melting will be prevented, and the fumes will fly off much sooner.

(N. B.) It must be done in a chimney ; otherwise the fumes will be hurtful to the operator.

Take a clean crucible, which will hold about a quart ; put into it about two pounds of your calcined antimony ; set it in a melting furnace, and make a gradual fire under it ; put coals nearly to the top of your crucible : keep it in a moderate fusion, sometimes stirring it about with an iron rod : care must be taken that your fire be not too violent, while your matter is

in

in fusion ; or it will liquify it to such a degree, and render it so subtle, that it will all run through the pores of your crucible, into your ash-hole ; not leaving one single drop, or grain behind.

When you find your matter, which adheres to your rod, transparent and bright (which it will be, in about half an hour after it is in fusion, if you have kept a proper degree of fire), have, in readiness, a smooth marble stone, well dried, and heated as hot as you can bear your hand upon it ; for fear your hot matter should break it. [It will be proper to have an iron curb round your marble, to rise half or three quarters of an inch above its surface, to prevent your matter from running off.] Pour your vitrified matter upon your stone ; and if you have any more of your calcined matter, put your crucible again into the fire ; put in more, and proceed as before. If your crucible is good, and your fire moderately governed, you may use the crucible five or six times ; as I, myself, have frequently done.

Thus have you a fair and pure glass of antimony, of a light red colour.

As I have been informed that most, if not all the glass of antimony, used in this kingdom, is imported ; and that the erroneous process in making it, is also introduced here, I shall make the following observation upon it.

As the glass of antimony, used here, is made abroad, we cannot be competent judges whether it is made of pure antimony, or such as may be mixed with other heterogeneous matter. I have also observed, that keeping the crucible covered, during the time of its

fusion, both hinders the vitrification, and makes the glass less pure, by preventing the remaining combustible parts of the antimony from flying off.

This glass of antimony, as prepared for Dr. Ward, is said to differ much from that which is generally sold in the shops ; Dr. Ward's is of a brighter red colour, much softer, and not so harsh and gritty in the pulverization and levigation : whence it is probable that the glass of antimony imported, is not prepared from pure antimony, or it is not properly prepared.

Respecting the process here given for preparing the glass of antimony, there is little or nothing but the common directions, which have been given for making it for officinal purposes, from the time of Basil Valentine to the present day. However, the caution of not using the glass of antimony made at Venice, which is the only kind commonly met with in the shops, is well founded ; for there is no doubt but that some sophistication is practised in the preparation of it.

The Pill.

Take of the aforesaid glass of antimony, as much as you please ; pound it in a clean iron mortar, and sift it through a fine lawn sieve ; then grind, or levigate it, on a smooth marble stone, to an impalpable powder. Take also dragon's blood, dried and powdered. To four ounces of your levigated glass, put one ounce of this dragon's blood ; grind them very well together ; and with good sack, or rich mountain wine, make into a mass for pills, of about one grain and half each, which is a full

full dose for a man or woman.

Bruise this pill, and take it in a spoonful of any small liquid, on an empty stomach. It sometimes works upwards, at others downwards, according to the nature and seat of the disorder: in which cases it is proper to drink a small quantity of baum or sage tea, &c. between each motion: and, if it sweats the patient, as it sometimes does, he must be kept warm, and encourage it by drinking as above. The day that the pill is taken, avoid milk, greens, and fruit. Its success has been happily experienced, in cases where the stomach or bowels are foul, or the passages obstructed; and particularly in inveterate rheumatic disorders.

Dr. Ward used to make these pills of different colours, viz. white, red, and blue. The late Mr. Clutton analyzed them, and found them to consist of the glass of antimony, coloured with white arsenic, red arsenic, and saffer.

The Drop; called the Emetic, or Sack Drop.

The Drop, so called, is made by putting half an ounce of your leigated glass of antimony into a quart of the richest Malaga mountain, or sack. Shake them well together, and let them stand two or three days to settle, and grow clear. Then pour off gently, to be quite fine.

The full dose (half an ounce) is for a man or woman: but best to begin with the half or two thirds; according to the age or strength of constitution.

When the sickness comes on, drink about half a pint of water, or thin water gruel; and continue to do so every time it operates.

It has been found to cleanse the stomach more effectually than the vomits usually given, and that without occasioning uncommon reachings.

The White Drop.

Pound and bruise fourteen pounds of the cleanest copperas into a rough powder; then dry it, with a very gentle heat, spreading it thin, till it becomes a dry and subtle powder, to appearance like quick lime, only much whiter. [Care must be taken, at the beginning of the drying, that the heat be very moderate; otherwise it will melt, and shut up the pores of the copperas, and greatly injure your future operation.]

When your copperas is thus become dry and subtle (which may be done in about six or seven days) weigh it, and take an equal quantity of good and clean rough nitre, or salt petre, which let also be tolerably dry. Pound your nitre and dried copperas together, and sift them through an indifferently fine hair-sieve, then put them into a large glass retort, coated at the bottom, and set it in a sand-furnace: let not your retort be above an inch from the bottom and sides of your sand-pan: fix on a very large receiver, and lute it: but leave a small vent-hole in the joint, by striking in the point of a small skewer, to let out the wind, which will issue from the matter at the first making of your fire) by drawing it out, and putting it in as you shall see occasion, to prevent your retort or receiver's bursting. Make a gentle fire for the first three hours; then increase it gradually, for three or four hours longer, till your iron pan be red at bottom; continue your fire for about thirty hours;

hours; then let it out, and when all is cool, you will have a most powerful aqua fortis. Put it into a bottle, and stop it close: let it stand six or eight days (the longer the better) to digest itself.

Put this aqua fortis into a glass retort; let it be about half, or two-thirds full; set it into your sand-heat, and fix on a receiver, which need not be very large: make an indifferent fire, till your aqua fortis is come over into your receiver; leaving behind only a brown reddish earth, which was forced over by the violence of the fire in the first distillation. Thus you have a most strong and pure aqua fortis.

[As I have never been able to procure any aqua fortis, proper for making the said drops, but what I made myself, I have here set down a true and full process for making it.]

Take of your rectified aqua fortis, as much as you please; put it into a large bolt-head, with a long neck, but not above a quarter full. Then take, of the purest and finest volatile sal ammoniac, in which there is not the least acid salt, or lime.

[As I have usually bought this volatile salt ready made, and doubt not but it may be had pure and genuine at Apothecary's hall, I have omitted here setting down the process for making it; having bought it of Mr. Godfrey, chemist.]

To sixteen ounces of the aforesaid aqua fortis, in your bolt-head, take seven ounces of the said volatile sal ammoniac; and, by half an ounce at a time, put it into your bolt-head, to your aqua fortis, immediately stopping the mouth of your bolt-head, till the fermentation is over: yet not so close,

but to leave some small vent, for fear the wind, caused by the violent fermentation, should burst the glass. When all your sal ammoniac is in, let it stand two or three hours, till the fumes are settled.

☞ [N. B. This is the right and exact proportion; if your operation in making your aqua fortis is rightly performed, and your volatile sal ammoniac be good and pure.]

Now put it into a smaller bolt-head, half full, and set it in a moderate sand heat; when it is warm, put in four ounces of the finest quicksilver to each pound (of sixteen ounces) of your solution; and let it stand in that heat, till all the quicksilver is dissolved. Increase your fire a little, and put in a small quantity more of quicksilver; thus letting it dissolve, by gentle additions, as much as it will. When it will dissolve no more, take it out of the bolt-head, put it into an open glass vessel, or a large white stone bowl. [I generally cut off a large glass body in the middle.] Set it in a moderate sand-heat, and let it evaporate till a pellicle or skin comes over the top of it. Then take it from the fire, and let it stand in a cool place to congeal.

Great care must be taken, that your heat be not too great in your evaporation, nor continued too long; or it would coagulate, and mix the corrosive oil (which is to be poured off after its congealment) with the fine pure salt, and quite spoil the medicine.]

There will remain, uncongealed, a heavy liquor, or oil, which pour off, and let it drain until no more will run or drop from it. Take the remaining salt, put it into a glass body, and to each pound (sixteen

(sixtee ounces) put three pounds of the finest rose-water ; stopping the mouth of your body, by tying over it a piece of double brown paper. Set it again in your sand-heat ; make an indifferently hot fire, till all your salt is dissolved ; which is usually done in twenty-four hours.

This medicine, thus rendered extremely mild, cannot possibly be accounted dangerous ; seeing that, in the dose of two drops, usually taken in twenty-four hours, the quantity does not amount to half a grain.

The white drop thus prepared, is a solution of mercury in the nitrous acid, diluted with water. In cases where mercurials are required, this preparation may be proper ; but those who recommend it to seafaring people as an antiscorbutic, should be apprised, that in the scurvy and in every putrescent disease, the exhibition of mercury, and all its preparations, is attended with certain destruction to the patient.

Of the white drop, two drops are directed to be taken, in a small glass of water, in the morning fasting, or at night when going to rest, for two or three days together. Then forbear for two or three days, from taking them ; then proceed as before, till the whole bottle is taken. They seldom work visibly, except in some constitutions, they occasion one or two motions.

In many instances of eruptions on the skin this medicine is useful, but the process given for making it, contains some unnecessary and trifling circumstances ; but, without dwelling on these, the author of the *Elaboratory* laid open gives the following process, which produces a medicine with every ad-

vantage possessed by Dr. Ward's, but free from the needless peculiarities which he prescribes.

A more easy and speedy Method of preparing Dr. Ward's White Drop.

Take of pure spirit of nitre, (such as is made for gilding. Mr. Ward's direction makes an aqua fortis ; and yet the evident principles of the process is to have a pure spirit of nitre,) sixteen ounces, put it into a bolt-head ; gradually add to it seven ounces of volatile alkaline salt ; then add to it four ounces of quicksilver ; and set the bolt-head in a sand bath of a gentle heat. When that quantity of quicksilver is dissolved, raise the heat a little, and throw in more quicksilver, by small quantities, till the fluid appears no longer to act on it. Then pour out the solution into a glass body, with a large opening, and evaporate it till the salt appears to form. Set it then in a cool place to crystallize ; and when the whole of the salt that will shoot is formed, pour off the mothers, and let the salt drain till all the fluid be separated from it. Evaporate the mothers again, and a fresh quantity of salt will shoot ; which must be treated in the same manner. Put the whole of the salt thus obtained, into a glass body ; and to each pound, put three pound of rose-water, or any pure water. Let the body remain in a sand bath, of less heat than will make it boil, untill the whole of the salt is re-dissolved.

For forming the solution of the volatile salt and mercury, the bolt-head should have a small neck, and a piece of paper loosely rolled together, may be put into the top to keep in the fumes. If salt form, during

during the operation, so as not to come easily out of the bolt-head, as much water, must be gradually added as will dissolve it.

Sweating Powder, N^o I.

Take ipccacuanha, liquorice, and opium, of each one ounce; nitre, and vitriolated tartar, of each four ounces. Fulminate.— Thus according to Dr. Ward's book.

Nitre and vitriolated tartar will not fulminate: the manner in which this powder is to be prepared is doubtless as follows.

Take four ounces of nitre, and the same quantity of vitriolated tartar. Rub them together, in a mortar, into a powder. Take a crucible (not of the blue sort) set it in the fire; and when it begins to be red, put in above half of your nitre and tartar; stirring it about with an iron rod. There will arise red fumes; which take care to avoid, for they are noxious. When the red fumes cease, put in the remainder of your matter, stirring it as before, till no more fumes arise. Then pour it into an iron mortar; and, when cool, add to it opium, liquorice, and ipccacuanha, in powder, of each an ounce: pound and sift them through a fine lawn sieve, and mix them well together.

N. B. The ipccacuanha must be such as will break easily, and not of the tough and woody sort.

This is one of the most certain sudorifics, and never weakens the patient by its operation. It was published by Dr. Dover in his book called the Old Physician's last Legacy to his Country, and has long been in use under the name of Dover's Sweating Powder.

The notice taken in the above directions for preparing this pow-

der, respecting red fumes which are to be avoided, is not just; the two ingredients do not act on each other, nor yet produce any fumes except a very small quantity of aqueous ones. The two salts may as well be used in this medicine in their simple state, and only mixed by powdering them together.

Sweating Powder, N^o II.

Take common tartar, and refined nitre, of each one pound; fulminate them together in a crucible, or an iron pot; which will reduce them to about fifteen ounces, after the fulmination. To these, add of white hellebore, and liquorice powder, of each six ounces; of opium, five ounces. Powder all these together, and sift them through a fine lawn sieve.

This powder is contrived on the same principle with the preceding, the stimulus of the hellebore and saline ingredients being determined to the skin by means of the opium.

The dose, from twenty to fifty grains.

Dr. Ward advised such of his patients as had never taken any of his sweats, to begin with half a paper only (containing the full dose) and to increase the quantity, or not, according to its operation, or the age and strength of the patient.

Both these sweating powders are to be taken in any liquid, going to bed, between the blankets, and drinking moderately now and then, something warm; such as white wine whey, baum tea, &c. Be careful not to check the sweating suddenly, but rather encourage it by lying still and keeping warm.

At first taking, it may be proper to begin with half a dose, gradually increasing it, as occasion may
other

require. If half the quantity does not raise a proper sweat, then take, the next night, three quarters, or the whole dose; repeat it every other night at discretion; and for as long a time as shall be found necessary; or as they agree with the constitution.

In stubborn rheumatic cases, and other settled pains in the limbs, the pill has been found to answer better than these powders.

Paste for the Fistula, &c.

Take a pound of elicampane root; three pounds of fennel seeds, and one pound of black pepper. Pound these separately, and sift them through a fine sieve. Take two pounds of good honey, and two pounds of powder sugar; melt the honey and sugar together, over a gentle fire, scumming them continually, till they become bright as amber. When they are cool, mix and knead them into your powder in the form of a soft paste.

This paste has been found to be a specific remedy for the fistula, piles, &c. The dose is the quantity of a nutmeg, morning, noon, and night, drinking a glass of water or white wine after it.

In cold constitutions, where there is a want of digestion, and a redundance of pituitous humours, this paste may be of some service to the general habit; but, as to answering the title given to it, that can only be negatively: while the paste is taken, impediments to the cure are set aside; and as many instances of disorders in the anus, would disappear if left to themselves, so, without intending it, depending on this medicine accidentally admits of relief.

Liquid Sweat.

Take a gallon of good spirit of wine, and half a gallon of good white wine; put them into a strong bottle, and add half a pound of good saffron; four ounces of good cinnamon; two ounces of salt of tartar; and one ounce of good opium, cut into small bits. Stop the bottle close, and set it within the air of the fire, for eight days, shaking the bottle three or four times a day. Lastly, filter it through paper.

The dose is from thirty to sixty drops in a glass of white wine. The same general observations are proper in the use of this medicine, as are given with the sweating powders.

This is a very trifling composition. The only efficacious ingredient is opium; but the dose thereof is too small to be productive of any considerable advantage.

Dropsy purging Powder. From Dr. Ward's Book.

Take of jalap, cream of tartar, Florentine orris root, each four ounces: make them into a fine powder separately, and mix them well.

Dropsy purging Powder, as prepared by Mr. D'Osterman for Dr. Ward.

Take a pound of jalap in powder, a pound of cream of tartar, and an ounce of bole ammoniac in fine powder: mix them well.

The dose is from thirty to forty grains, in broth, or warm beer, two or three days together, or oftener, as necessary. This medicine rarely fails in the watery or the windy dropsy;

dropſy ; provided that the patient hath not been tapt. It muſt be repeated at proper intervals, as the caſe may require.

Effence for the Head-Ach. and Pains. From Dr. Ward's Book.

Take ſpirit of wine, four ounces ; camphor, two ounces ; volatile ſpirit of camphor, two ounces : mix them well, and apply it with the hand.

Effence for the Head-Ach, and Pains, as prepared by Mr. D'Oſterman for Dr. Ward.

Take two pound of true French ſpirit of wine, put it into a large ſtrong bottle, and add two ounces of roch alum in very fine powder; four ounces of camphor, cut very ſmall ; half an ounce of the effence of lemons ; and four ounces of the ſtrongest volatile ſpirit of ſal ammoniac. Stop the bottle quite cloſe, and ſhake it three or four times a day, for five or ſix days.

Gently rub a little of it upon the palm of the hand, or apply it to the part affected ; holding it there till it is dry. Repeat it two or

three times, if the pain is not ſooner relieved.

Of all Dr. Ward's medicines, this, in his life-time, ſurprized the multitude, and baffled the curioſity of enquirers the moſt ; as he never would, it is ſaid, either ſell it, or entruſt it in the cuſtody of any other perſon. After all, the ſubtile fluid called æther, is more probably the real medicine which he uſed, than this mixture, which is little more than a ſpirit of wine and camphor.

As to the volatile ſpirit of camphor mentioned in Dr. Ward's book, there is no ſuch ſpirit known ; nor does he give any direction to make it. Beſides, the quantity of camphor cannot be diſſolved in the quantity of the two ſpirits which he preſcribes. In the preſcription given by Mr. D'Oſterman, there is a conſiderable deficiency ; the volatile alkali ſhould be in the cauſtic ſtate, that is, it muſt be the ſpirit of ſal ammoniac prepared with quicklime, or it will not even with the aſſiſtance of the rectified ſpirit of wine, mix with the effence of lemons. The addition of the alum is injurious, for its acid uniting with the volatile alkali, will deſtroy the greateſt part of it.

This medicine differs little from a mixture of camphor with the volatile aromatic ſpirit of the ſhops.

INDEX of those Names of Medicines which have been changed by the College of London in the last Edition of their DISPENSATORY.

The former Names.

Antimonium diaphoreticum
 Aqua benedicta composita Ba-
 teana
 Aqua Hungarica Bateana
 Aqua styptica Camphorata
 Aqua styptica Sydenhami
 Arcanum corallinum
 Aurum mosaicum
 Balsamum polychrestum
 Calomelas
 Confectio Archigenis
 Confectio Raleighana
 Crocus metallorum
 Diacasia cum mannâ
 Diascordium
 Elixir asthmaticum
 Elixir proprietatis Helmontii
 Elixir proprietatis simplex
 Elixir salutis
 Elixir vitrioli Minsichti
 Elixir vitrioli Vigani
 Emplastrum diachylon simplex
 Emplastrum diachylon cum gummi

The new Names.

Calx antimonii; the calx of
 antimony.
 Aqua calcis minus composita;
 the less compound lime-water.
 Spiritus rorismarini; spirit of rose-
 mary.
 Aqua vitriolica camphorata; the
 camphorated vitriol water.
 Aqua vitriolica caerulea; the blue
 vitriol water.
 Mercurius corallinus; coralline
 mercury.
 Aurum musivum; mosaic gold.
 Balsamum guaiacinum; balsam of
 guaiacum.
 Mercurius dulcis sexies sublima-
 tus; dulcified mercury sublimate
 six times sublimed.
 Confectio Paulina; the confectiion
 called Paulina.
 Confectio cardiaca; the cordial
 confectiion.
 Crocus antimonii; crocus of anti-
 mony.
 Electarium è casia; electary of
 casia.
 Electarium è scordio; electary of
 scordio.
 Elixir paregoricum; paregoric
 elixir.
 Vinum aloeticum alkalinum; aloe-
 tic alkaline wine.
 Elixir aloes; elixir of aloes.
 Tinctura senæ; tincture of sena.
 Elixir vitrioli acidum; acid elixir
 of vitriol.
 Elixir vitrioli dulce; dulcified
 elixir of vitriol.
 Emplastrum commune; the com-
 mon plaster.
 Emplastrum commune cum gum-
 mi; the common plaster with gums.
 U u Emplastrum

I N D E X.

Emplastrum epispasticum	{	Emplastrum vesicatorium ; <i>blistering plaster.</i>
Emplastrum è meliloto	{	Emplastrum attrahens ; <i>drawing plaster.</i>
Ens veneris		Flores martialis ; <i>martial flowers.</i>
Gas sulphuris		Aqua sulphurata ; <i>sulphurated water.</i>
Julepum camphoratum	{	Julepum è camphora ; <i>the camphorated julep.</i>
Julepum cretaceum		Julepum è creta ; <i>the chalk julep.</i>
Julepum moschatum		Julepum è moscho ; <i>the musk julep.</i>
Lac sulphuris	{	Sulphur praecipitatum ; <i>precipitated sulphur.</i>
Lapis contrayervae	{	Pulvis contrayervae compositus ; <i>compound powder of contrayerva.</i>
Laudanum liquidum Sydenhami	{	Tinctura Thebaica ; <i>Thebaica tincture.</i>
Linimentum Arcaei	{	Unguentum è gummi elemi ; <i>ointment of gum elemi.</i>
Linimentum opodeldoc	{	Linimentum saponaceum ; <i>saponaceous liniment.</i>
Mercurius praecipitatus per se	{	Mercurius calcinatus ; <i>calined quicksilver.</i>
Mercurius praecipitatus ruber	{	Mercurius corrosivus ruber ; <i>the mercurial red corrosive.</i>
Oleum antimonii	{	Causticum antimoniale ; <i>the antimonial caustic.</i>
Oleum sulphuris per campanum	{	Spiritus sulphuris per campanum ; <i>spirit of sulphur by the bell.</i>
Oleum tartari per deliquium	{	Lixivium tartari ; <i>ley of tartar.</i>
Oleum vitrioli	{	Spiritus vitrioli fortis ; <i>the strong spirit of vitriol.</i>
Pasta epispastica	{	Epithema vesicatorium ; <i>blistering epithem.</i>
Philonium Romanum	{	Philonium Londinense ; <i>the London philonium.</i>
Pilulae cocciae minores	{	Pilulae ex colocynthide cum aloe ; <i>pills of colocynthida with aloes.</i>
Pilulae diambrae		Pilulae aromaticae ; <i>aromatic pills.</i>
Pilulae è duobus	{	Pilulae ex colocynthide simpliciores ; <i>the more simple pills of colocynthida.</i>
Pilulae Rudii	{	Extractum catharticum ; <i>the cathartic extract.</i>
Pulvis cephalicus	{	Pulvis sternutatorius ; <i>sneezing powder.</i>
Pulvis comitis Warwicensis	{	Pulvis è scammonio compositus ; <i>compound powder of scammony.</i>
Pulvis diasenae	{	Pulvis è sena compositus ; <i>compound powder of sena.</i>
Saccharum rosatum	{	Saccharum rosaceum ; <i>sugar of roses.</i>
		Species

Species confectionis Fracastorii	{	Species è scordio cum opio; <i>Species of scordium, or water-germander, with opium.</i>
Species diambrae sine odoratis	{	Species aromaticae; <i>aromatic species.</i>
Species diatragacanthi frigidae	{	Pulvis è tragacantha compositus; <i>compound water of gum dragant.</i>
Species hieræ picrae	{	Hiera picra; <i>hiera picra.</i>
Spiritus vini camphoratus	{	Spiritus vinosus camphoratus; <i>camphorated spirit of wine.</i>
Spiritus vitrioli	{	Spiritus vitrioli tenuis; <i>the weak spirit of vitriol.</i>
Spiritus volatilis oleofus	{	Spiritus volatilis aromaticus; <i>aromatic volatile spirit.</i>
Sulphur auratum antimonii	{	Sulphur antimonii praecipitatum; <i>precipitate sulphur of antimony.</i>
Syrupus capillorum Veneris	{	Syrupus pectoralis; <i>pectoral syrup.</i>
Theriaca Londinensis	{	Cataplasmata è cymino; <i>cumin cataplasm.</i>
Tinctura antiphthifica	{	Tinctura saturnina; <i>the saturnine tincture.</i>
Tinctura croci vino canarino	{	Vinum croceum; <i>saffron wine.</i>
Tinctura hellebori	{	Tinctura melampodii; <i>tincture of black hellebore.</i>
Tinctura Helvetii	{	Tinctura styptica; <i>the styptic tincture.</i>
Tinctura hierae	{	Tinctura sacra; <i>tincture sacra.</i>
Tinctura specierum diambrae sine odoratis	{	Tinctura aromatica; <i>aromatic tincture.</i>
Trochisci alba Razis	{	Pulvis è cerussa compositus; <i>compound powder of ceruse.</i>
Trochisci è carabe	{	Pulvis è succino compositus; <i>compound powder of amber.</i>
Trochisci è myrrha	{	Pulvis è myrrhâ compositus; <i>compound powder of myrrh.</i>
Turpethum minerale	{	Mercurius emeticus flavus; <i>the yellow mercurial emetic.</i>
Vinum benedictum	{	Vinum antimoniale; <i>antimonial wine.</i>
Unguentum dialthaeae	{	Unguentum ex althæâ; <i>ointment of marsh-mallows.</i>
Unguentum martiatum	{	Unguentum viride; <i>the green ointment.</i>
Unguentum nutritum	{	Unguentum tripharmacum; <i>ointment of three ingredients.</i>
Unguentum pomatum	{	Unguentum simplex; <i>the simple ment.</i>

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